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COMMERCIAL FERTILIZERS

Report for 1955



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Chief Chemist

THE CONNECTICUT AGRICULTURAL EXPERIMENT
STATION, NEW HAVEN, CONNECTICUT

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REPORT ON INSPECTION AND ANALYSIS OF COMMERCIAL FERTILIZERS, 1955

H. J. FISHER, Chief Chemist¹

CONNECTICUT LAW AND REGULATIONS REGARDING COMMERCIAL FERTILIZERS

The term "commercial fertilizers," as used in the Connecticut fertilizer statute, includes "any and every substance imported, manufactured, prepared or sold for fertilizing or manuring or soil amendment purposes, except barnyard manure and stable manure which have not been artificially treated or manipulated, marl and lime". An amendment of the law in 1949 permitted fertilizers to be labelled with guaranties of elements other than nitrogen, phosphorus and potassium, but did not change the requirement that mixed fertilizers must contain at least 0.82 per cent of nitrogen, and 1 per cent of either phosphoric acid or potash, for guaranties of these elements to be made. Phosphorus must be declared as available phosphoric acid (except in the case of bone, tankage and other natural organic materials, where total phosphoric acid is guaranteed), and potassium as water-soluble potash; all other elements must be guaranteed in terms of percentages of *the elements*, not as oxides or salts. A registration fee of \$10.00, payable annually, is charged for each element guaranteed in each brand of fertilizer; there is also a six-cent tonnage tax, payable semiannually.

While manufacturers usually register their own fertilizers, if a retailer sells a fertilizer manufactured by an out-of-state firm, and that firm refuses to register, under the law the retailer is responsible for registration fees and tonnage taxes. *The retailer, therefore, should assure himself that the requirements of the law have been met by the manufacturers of the brands which he handles, or himself be prepared to meet all these requirements.*

The law exempts from registration, and from other requirements, only: (1) fertilizers passing through the State in transit; (2) fertilizers and fertilizer materials shipped to regular fertilizer factories to be used for manufacturing purposes; and (3) fertilizers and fertilizer chemicals sold to The Connecticut Agricultural Experiment Station for experimental purposes.

Cottonseed, linseed, peanut and soybean oil meals, when sold or used for fertilizer purposes, must be registered as fertilizers and the specified fees paid thereon. For such products the registration fee is \$10.00 per brand. This fee and the tonnage tax are entirely apart from the registration fee required by the feeding stuffs law for vegetable meals used as feeds (there is no tonnage tax on feeds).

Because manufacturers or jobbers do not know how much, if any, of their vegetable meal tonnage is sold or used as fertilizer, local dealers and

¹Analyses were made by Mr. O. L. Nolan, Miss Helen Kocaba, Mrs. Norma Spencer and Miss Sunrae Agostini; inspection and sampling by Mr. R. Richard Nichols; compilations by Mr. Nolan, Miss Evelyn Caputo and Miss Eleanor Hopcraft.

purchasers report their sales or purchases to this Station. The information is not for publication but is used to inform manufacturers of the total sales of their meal as fertilizer in this state. It is expected that the fees provided for by statute will be paid by the manufacturer or other party responsible for the brands.

Official Definitions of Fertilizer Terms and Materials

It is expected that fertilizers sold in this state will comply with the regulations and standards of the Association of American Fertilizer Control Officials. A copy of the "Official Publication" of that Association giving these definitions and regulations may be obtained from the secretary-treasurer, B. D. Cloaninger, Drawer 392, Clemson, South Carolina, for \$2.00.

REGISTRATIONS

Late Registrations for 1954

To the brands registered for 1954 in our last report should be added the following:

Cargill, Incorporated, 200 Grain Exchange Bldg., Minneapolis 15, Minn.

Cargill, Incorporated 34% Protein Solvent Extracted Linseed Oil Meal

Central Soya Company, Inc., Ft. Wayne, Indiana

Central Soybean Oil Meal 44% Protein Solvent Extracted

Cocke and Company, 208 William Oliver Bldg., Atlanta, Georgia

Cocke-Sure Brand Prime Quality 41% Protein Cottonseed Meal

Registrations for 1955

For 1955, 95 firms and individuals registered 456 brands of fertilizer at this Station for sale in the State. As required by statute, the brands are listed as follows:

J. & L. Adikes, Inc., 182nd Place & 93rd Ave., Jamaica 23, N. Y.

Gro-Well Bone Meal

Gro-Well Cow Manure

Agricultural Supply Co., 221 Richmond Ave., West Haven, Conn.

Yale Special Mixture

Alaska Fertilizer Co., 84 Seneca Street, Seattle 1, Wash.

Alaska Fish Fertilizer

E. T. Allen Co., P. O. Box 951, Atlanta 1, Ga.

EMPIRE — 41% Protein Cottonseed Meal

Allied Chemical & Dye Corp., Nitrogen Div., 40 Rector St., New York 6, N. Y.

"ARCADIAN" 12-12-12 Granular Fertilizer

"ARCADIAN" A-N-L Fertilizer Compound

"ARCADIAN" Nitrana Solution 2

"ARCADIAN" Nitrana Solution 4

"ARCADIAN" Nitrate of Soda

"ARCADIAN" Urea 45 Fertilizer Compound

Sulphate of Ammonia (20.6%N)

The American Agricultural Chemical Co., 285 River St., North Weymouth, Mass.

AA Quality Fertilizer 0-10-20
 AA Quality Fertilizer 0-14-14
 AA Quality Fertilizer 0-20-20
 AA Quality Fertilizer 4-12-16
 AA Quality Fertilizer 5-5-15
 AA Quality Fertilizer 5-8-7
 AA Quality Fertilizer 5-10-5
 AA Quality Fertilizer 5-10-10
 AA Quality Fertilizer 8-16-16
 AA Quality Fertilizer 10-10-10
 Agrico Bulb Food 5-9-6
 Agrico Country Club 6-10-4
 Agrico Country Club 8-6-4
 Agrico Country Club 10-6-4
 Agrico Rose Food 5-9-6
 Agrico for Broadleaf Evergreens 6-10-4
 Agrico for Corn 4-12-8
 Agrico for Gardens 5-10-5
 Agrico for Lawns, Trees and Shrubs 6-10-4
 Agrico for New England 5-8-7
 Agrico for Potatoes 5-10-10
 Agrico for Seeding Down 3-12-12
 Agrico for Tobacco 6-3-6
 Agrico for Top Dressing 7-7-7
 Agrico for Top Dressing 10-10-10
 Agrico for Truck 5-10-5
 Agrico for Turf 6-8-2
 Agrico for Turf 10-6-4
 Agrico Phosphate & Potash 0-10-20
 Agrico Phosphate & Potash 0-14-14
 Agrinite
 Bone Meal
 20% Granular Superphosphate
 18% Normal Superphosphate
 Phosphate Rock 0-30^T-0
 Sheep Manure

American Cyanamid Company, 30 Rockefeller Plaza, New York 20, N. Y.

AERO Cyanamid, Granular
 AERO Cyanamid, Special Grade
 AERO-PHOS Florida Natural Phosphate 31%
 AERO-PHOS Florida Natural Phosphate 33%
 AEROPRILLS Fertilizer Grade Ammonium Nitrate
 Lawn and Garden Cyanamid

American Liquid Fertilizer Co., Inc., 2nd & St. Clair Sts., Marietta, Ohio

Liqua-Vita Turf Special

Andrew Wilson, Inc., Baltusrol Way, Springfield, N. J.

Wilson's Eureka Plant Food

Apothecaries Hall Co., 8-28 Benedict St., Waterbury, Conn.

Aluminum Sulfate, Standard-Ground
 Bone Meal 2.25 — 22
 Castor Pomace
 Cotton Hull Ashes
 Dry Ground Fish
 Fertilizer Borate
 Green Gro Acid Fertilizer
 Green Gro All Organic Fertilizer
 Green Gro Fertilizer Mixture
 Green Gro Home Garden
 Green Gro Raw Bone Meal
 Green Gro Rose Food
 Liberty Fertilizer 0-10-20

Apothecaries Hall Co., 8-28 Benedict St., Waterbury, Conn. — Cont'd.

Liberty Fertilizer 0-14-14
 Liberty Fertilizer 0-20-20
 Liberty Fertilizer 3-12-12
 Liberty Fertilizer 4-12-4
 Liberty Fertilizer 5-10-5
 Liberty Fertilizer 5-10-10
 Liberty Fertilizer 5-10-10 with 1.2 Magnesium
 Liberty Fertilizer 6-8-8
 Liberty Fertilizer 6-8-8 with 1.2 Magnesium
 Liberty Fertilizer 8-8-8
 Liberty Fertilizer 8-16-16
 Liberty Fertilizer 10-10-10
 Liberty Green Gro All Organic
 Liberty Green Gro Fertilizer
 Liberty High Grade Market Gardeners
 Liberty Landscape and Golf Course Fertilizer
 Liberty Special Fertilizer for Fruit & Grass
 Liberty Super Spud Special Potato Fertilizer with 1.2 Magnesium
 Liberty Tobacco Mixture 5-5-15
 Liberty Tobacco Mixture 6-3-6
 Liberty Tobacco Mixture 6-3-6 with Cotton Hull Ashes
 Liberty Tobacco Mixture 6-3-6 with 1.2 Magnesium
 Liberty Tobacco Starter
 Muriate of Potash
 Nitrate of Potash
 Precipitated Bone
 Sheep Manure
 Sul-Po-Mag
 Superphosphate, 20%

Archer-Daniels-Midland Co., P. O. Box 839, Minneapolis 2, Minn.

Archer Quality 36% Protein Solvent Extracted Linseed Oil Meal (Fertilizer)

Armour Fertilizer Works, Box J, Carteret, N. J.

Armour's All Organic
 Armour's Big Crop Fertilizer 0-20-20
 Armour's Big Crop Fertilizer 5-8-7
 Armour's Big Crop Fertilizer 5-10-5
 Armour's Big Crop Fertilizer 5-10-10
 Armour's Big Crop Fertilizer 7-7-7
 Armour's Big Crop Fertilizer 10-10-10
 Armour's Big Crop Superphosphate
 Armour's Bone Meal
 Armour's Gold Bond Tobacco Grower
 Armour's Pulverized Sheep Manure
 Armour Vertagreen Plant Food 5-10-5
 Armour Vertagreen Plant Food for Commercial Crops 6-12-6
 Armour Vertagreen Plant Food for Commercial Crops 6-12-12
 Armour Vertagreen Plant Food for Commercial Crops 8-8-8
 Armour Vertagreen Plant Food for Professional Use 10-6-4

Ashcraft-Wilkinson Co., Trust Co. of Georgia Bldg., Atlanta, Ga.

Cow-Eta Brand 36% Protein Cottonseed Meal
 Cow-Eta Brand 41% Protein Cottonseed Meal

Associated Seed Growers, Inc., Milford, Conn.

Asgrow Azalea Food 7-7-7
 Asgrow Bulb Food 4-12-8
 Asgrow Bone Meal 2-26
 Asgrow Evergreen Food 10-6-4
 Asgrow Lawn Food
 Asgrow Plant Food 5-10-5
 Asgrow Rose Food 5-10-5
 Asgrow Sheep Manure 1.5-1.5-2
 Japedizer
 Soluble Fertilizer 20-20-20

Atkins & Durbrow, Inc., Box 55, Port Colborne, Ontario, Can.
A & D DRICONURE

Atlas Fish Fertilizer Co., 1 Drumm St., San Francisco, Calif.
Atlas Fish Emulsion Fertilizer

H. J. Baker & Bro., 600 Fifth Ave., New York, N. Y.
Nitroganic

The F. A. Bartlett Tree Expert Co., 60 Canal St., Stamford, Conn.
Bartlett Green Tree Food

The Borden Company — Chemical Div., 350 Madison Ave., New York 17, N. Y.
Borden's "38"

The Boswell Company, Atlanta, Ga.
Pure Gold 41% Protein Cottonseed Meal

Bradley & Baker, 1401 Peachtree St., N. E., Atlanta, Ga.
NITROLIME (Ammonium Nitrate Limestone)

Joseph Breck & Sons Corp., 401 Summer St., Boston 10, Mass.
Breck's Garden Gro
Breck's Greenlite (all organic)
Breck's Quick-Life
Breck's Turf-Gro

The Buckeye Cotton Oil Co., 6th & Main Sts., Cincinnati, Ohio
Buckeye 41% Protein Cottonseed Meal for Fertilizer

California Spray-Chemical Corp., Lucas & Ortho Way, Richmond, Calif.
ORTHO-GRO Liquid Plant Food
ORTHO Lawn Groom

The Carac Corp., 162 Babylon Tpke., Freeport, N. Y.
CARAC 46-0-0
CARAC Fossium
CARAC Rose and Floral Plant Food

Carbola Chemical Co., Inc., Natural Bridge, N. Y.
CCC Triple 20 Plant Food

Chilean Nitrate Sales Corp., 120 Broadway, New York 5, N. Y.
Chilean Nitrate of Soda — Champion Brand

Cocke and Company, 32 Peachtree St., N. W., Atlanta 3, Ga.
Cocke-Sure Brand Prime Quality 36% Protein Cottonseed Meal
Cocke-Sure Brand Prime Quality 41% Protein Cottonseed Meal

Consolidated Rendering Co., 178 Atlantic Ave., Boston, Mass.
Corenco 0-10-20 Hay & Pasture Special
Corenco 0-14-14 Top Dresser
Corenco 0-15-30
Corenco 0-20-20 Legume Special
Corenco 4-12-4 Complete Manure
Corenco 4-12-16 Ladino Special
Corenco 5-3-5 Peerless Tobacco Grower
Corenco 5-5-15 Tobacco Starter
Corenco 5-8-7 Potato & General Crop
Corenco 5-10-5 Home Garden
Corenco 5-10-5 Onion Special — Super Truck
Corenco 5-10-5 Rose Special
Corenco 5-10-10 Peerless Potato
Corenco 5-10-10-1.2 Peerless Potato with Magnesium
Corenco 6-3-6 Perfection Tobacco Grower

Consolidated Rendering Co., 178 Atlantic Ave., Boston, Mass. — Cont'd.

Corenco 6-3-6 Premium Tobacco Grower
Corenco 6-8-8 Potato Special
Corenco 6-8-8-1.2 Potato Special with Magnesium
Corenco 7-7-7 Complete Fruit and Top Dressing
Corenco 8-6-4 Landscape Fertilizer
Corenco 8-6-4 Turf Green
Corenco 8-16-16 Two-in-One
Corenco 10-5-5
Corenco 10-6-2
Corenco 10-6-4
Corenco 10-10-10
Corenco Dried Cow Manure
Corenco Granular Superphosphate 20%
Corenco Ground Bone
Corenco Liquid Green
Corenco Organic Turf Fertilizer
Corenco Sheep Manure 1.25-1-2
Corenco Sheep Manure 2-1-2
Corenco Superphosphate 20%
Muriate of Potash
Sulphate of Ammonia

The Davey Tree Expert Co., 117 S. Water St., Kent, Ohio

Davey Shredded Cattle Manure
Davey Tree Food

R. G. Davis & Sons, 560 Grand Ave., New Haven, Conn.

"Organo"

Davison Chemical Co., Div. of W. R. Grace & Co., 101 N. Charles St., Baltimore 3, Md.

0-10-20 Davco Granulated Fertilizer
0-20-20 Davco Granulated Fertilizer
4-12-16 Davco Granulated Fertilizer
5-8-7 Davco Granulated Fertilizer
5-10-5 Davco Granulated Fertilizer
5-10-5 Davco Gran. Turf & Garden Food (Prem.)
5-10-10 Davco Granulated Fertilizer
8-16-16 Davco Granulated Fertilizer
10-10-10 Davco Granulated Fertilizer
Davco Granulated 20% Superphosphate
Fine Bone Meal
Muriate of Potash 60% Regular

Delphos Grain & Soya Products Co., Delphos, Ohio

44% Protein Soybean Oil Meal (Solvent Extracted)

Doggett-Pfeil Company, Morris Turnpike, Springfield, N. J.

Hydromix Crabgrass Killer
Hydromix Crabgrass & Weed Preventer
Hydromix Soluble Fertilizer

E. I. du Pont de Nemours and Company, Wilmington, Delaware

DU PONT NU GREEN Fertilizer Compound
DU PONT Soluble Plant Food 19-22-16
DU PONT URAMITE Fertilizer Compound

Eastern States Farmers' Exchange, Inc., 26 Central St., West Springfield, Mass.

Castor Pomace
Eastern States 0-15-30 with 0.2 Boron
Eastern States 0-20-20
Eastern States 5-10-10 with 1.2 Magnesium
Eastern States 8-4-8 (Tobacco) with 1.2 Magnesium
Eastern States 8-12-12 with 1.2 Magnesium
Eastern States 8-12-12 L. C. with 1.2 Magnesium

Eastern States Farmers' Exchange, Inc., 26 Central St., West Springfield, Mass. — Cont'd.

Eastern States 8-16-16 with 0.6 Magnesium
Eastern States 10-10-10 with 0.6 Magnesium
Eastern States 10-10-10 S. M. with 1.2 Magnesium
Eastern States Starter 64 (16-32-16)
Muriate of Potash
Nitrogen Solution 37
Sulfate of Potash
Superphosphate (Gr. & Pulv.)

The Espoma Company, P. O. Box #108, Millville, N. J.

Espoma
Espoma Rose Food
Holly-Tone

Faesy & Besthoff, Inc., 325 Spring St., New York 13, N. Y.

F & B 15-30-15 Starter-Grower All-Purpose
F & B Broadleaf High Organic 6-10-4
F & B Pure Bone Meal
F & B Rose Food 8-10-4

Ferro Corporation, 4150 E. 56th St., Cleveland, Ohio

Agricultural F. T. E. (Fritted Trace Elements)
Agricultural F. T. E. Manganese "40"
F. T. E. (Fritted Trace Elements)

Fertiline Corporation of America, 251 Central Park West, New York, N. Y.

Fertiline Complete Liquid Fertilizer

Fiestar, Inc., 39 Planting Field Rd., Roslyn Heights, N. Y.

Fiestar

Ford Motor Co., 3000 Schaefer Rd., Dearborn, Mich.

Ford Ammonium Sulphate

Forward House Div. Olin Math. Chem. Corp., 745 Fifth Ave., New York 22, N. Y.

Plantrons

Geigy Agricultural Chemicals, 89 Barclay St., New York 8, N. Y.

SEQUESTRENE NaFe

Godfrey's of Fairfield, 1630 Post Road, Fairfield, Conn.

Professional Brand 5-10-5

Goldenrod Oil Meal Sales Co., 727 Beale Ave., P. O. Box 152, Memphis 1, Tenn.

Goldenrod Brand 41% Protein Cottonseed Meal—Prime Quality

Goulard & Olena, Inc., Skillman, N. J.

G & O Cottonseed Meal 41% Protein
G & O Go Weed & Turf Food
G & O Ground Bone Fertilizer
G & O Hyganic
G & O Nitrate Soda
G & O Prizegro 5-10-5
G & O Raw Bone Meal
G & O Rhodo-Azalea Food
G & O Rose Food
G & O 20% Superphosphate
Godfrey's Hi-Organic No-Filler 10-6-4

Grace Chemical Company, 7 Hanover Square, New York, N. Y.

Grace Urea Prills

A. H. Hoffman, Inc., Landisville, Pa.

Hoffman Cow Manure (Dehydrated)
Hoffman Sheep Manure (Kiln-Dried)

Hoover Soil Service, Gillman, Ill.

A Soft Phosphate with Colloidal Clay

Humphreys-Godwin Co., 2246 Park Ave., Memphis, Tenn.

Dixie Brand 41% Cottonseed Meal

Spencer Kellogg and Sons, Inc., 98 Delaware Ave., Buffalo, N. Y.

Castor Pomace
Spencer Kellogg's 34% Protein Old Process (Expeller) Linseed Oil Meal
Spencer Kellogg's 44% Protein Toasted Soybean Oil Meal — Solvent Extracted

Kind & Knox Gelatin Co., Camden, N. J.

Dicalcium Phosphate Precipitated Bone Phosphate

Lawn-Tex Corp., 1640 W. Fulton St., Chicago, Ill.

Organi-Green

Lebanon Chemical Corporation, Box 532, Lebanon, Pa.

Azalea Food
Bone Meal
Cow Manure
Fertilizer 5-10-10
Fertilizer 10-6-4
Hi Organic
Plant Food
Rose Food
Sheep Manure
Spray Gro
Sulphate of Ammonia
20% Superphosphate
Top Crop 9-9-9
Turf Organic

Liquid Fertilizer Corp. of America, 960 Springfield Ave., Irvington, N. J.

Beauty Lawn

Liquilawn, Inc., 11 West 42 St., New York 36, N. Y.

Liquilawn 12-8-4

Liquilizer Corporation, P. O. Box 193, Vincennes, Ind.

Liquilizer

L. B. Lovitt & Co., 314 Cotton Exch. Bldg., Memphis, Tenn.

"LOVIT BRAND" 41% Protein Cottonseed Meal, Prime Quality

The Mamlon Co., 1089 Whalley Ave., New Haven 15, Conn.

FER-MEL General Purpose Plant Food
FER-MEL Turf & Tree Food

Marianna Sales Co., 510 Cotton Exchange Bldg., Memphis, Tenn.

"WHITE MULE BRAND" 41% Protein Cottonseed Meal

Monsanto Chemical Co., 1700 South Second, St. Louis 4, Mo.

Folium

McArdle's Seed Co., 388 Greenwich Ave., Greenwich, Conn.

McArdle's Hi-Organic 10-6-4

McCormick & Co., Inc., McCormick Bldg., Baltimore 2, Md.

Hy-Gro
Orchid Hy-Gro

"Na-Churs" Plant Food Co., 421 Monroe St., Marion, Ohio

"Na-Churs" Liquid Fertilizer 7-14-7

"Na-Churs" Liquid Fertilizer 10-20-10

Natural Plant Food Co., 210 W. California, Oklahoma City 2, Okla.

Longhorn Brand Cattle Manure

Ramshorn Brand Sheep Manure

Old Deerfield Fertilizer Co., Inc., 20 Sugarloaf St., South Deerfield, Mass.

High Grade Sulphate of Potash

Old Deerfield 5-5-15 Tobacco Starter

Old Deerfield 5-8-7

Old Deerfield 5-10-5 Trucker's Special

Old Deerfield 5-10-10 Potato

Old Deerfield 6-3-6 Complete Tobacco

Old Deerfield 6-3-6 Tobacco with 1.2 Magnesium

Old Deerfield 6-4-7 Hi-Grade Complete Tobacco

Old Deerfield 6-8-8 Special Potato

Old Deerfield 7-7-7

Old Deerfield Castor Pomace

Old Deerfield Cottonhull Ash, 40%

Old Deerfield Superphosphate 20%

Old Fox Agricultural Sales Inc., 49 Valley St., East Providence, R. I.

Old Fox Brand 0-0-60

Old Fox Brand 0-12-24

Old Fox Brand 0-20-0

Old Fox Brand 0-20-20

Old Fox Brand 4-16-20

Old Fox Brand Organo 5% Organic Nitrogen 5-0-0

Old Fox Brand 5-8-7

Old Fox Brand Garden Food 5-10-5

Old Fox Brand 5-10-10

Old Fox Brand 5-10-10 with 1.2 Magnesium

Old Fox Brand Tobacco 6-3-6

Old Fox Brand 7-7-7

Old Fox Brand Turf Food 8-6-2

Old Fox Brand 10-10-10

Olds & Whipple, Inc., 168 State St., Hartford, Conn.

Muriate of Potash

O & W 0-20-20 Fertilizer with Borax

O & W 4-8-4 Complete Lawn Grass Fertilizer

O & W 4-12-4 Market Garden Fertilizer

O & W 5-3-5 Complete Tobacco Fertilizer — Potash derived from Cotton Hull Ash

O & W 5-5-15 High Grade Tobacco Starter

O & W 5-8-6 Luxura

O & W 5-8-7 Potato & General Purpose Fertilizer

O & W 5-10-5 Fertilizer

O & W 5-10-10 Potato Fertilizer

O & W 5-10-10 Potato Fertilizer with 1.2 Magnesium

O & W 6-3-6 Blue Label Tobacco Fertilizer — Potash derived from Cotton Hull Ash

O & W 6-3-6 Pomace Base Fertilizer — Potash derived from Cotton Hull Ash

O & W 6-8-8 Special Potato Fertilizer

O & W 6-8-8 Special Potato Fertilizer with 1.2 Magnesium

O & W 7-7-7 Top Dressing and Grass Fertilizer

O & W 8-12-12 High Grade General Purpose Fertilizer with 1.8 Magnesium

O & W 10-6-4 Luxura

O & W Bone Meal

O & W Castor Pomace

O & W Cotton Hull Ash

Olds & Whipple, Inc., 168 State St., Hartford, Conn. — Cont'd.

O & W Menhaden Dry Ground Fish
O & W Nitro-Gro 4-4-0
O & W Sulphate of Potash
O & W Superphosphate
O & W Triple Superphosphate
Precipitated Bone Phosphate
Sheep Manure
Sulphate of Potash and Magnesia

Olin Mathieson Chemical Corp., 10 Light St., Baltimore 3, Md.
Mathieson Spray Fertilizer**Frank S. Platt Co., 484 State St., New Haven, Conn.**

Platt's Concentrated 10-5-5 Lawn Fertilizer

Premier Peat Moss Corp., 535 Fifth Ave., New York, N. Y.

Premier-Nure

The Rackliffe Oil Co., 114 Franklin Sq., New Britain, Conn.

"Lawn-Ade"

Ra-Pid-Gro Corporation, 88 Ossian St., Dansville, N. Y.

Ra-Pid-Gro

The Rogers & Hubbard Co., Portland, Conn.

Gro-Fast Acid Fertilizer
Gro-Fast All Organic Fertilizer
Gro-Fast Aluminum Sulphate
Gro-Fast Bone Meal
Gro-Fast Cow Manure
Gro-Fast Plant Food
Gro-Fast Rose Food
Gro-Fast Sheep Manure
Gro-Fast SOL (Water Soluble Concentrate)
Hubbard 0-20-20
Hubbard Alfalfa Fertilizer
Hubbard Alfalfa Fertilizer with Borax
Hubbard Castor Pomace
Hubbard Climax Tobacco Fertilizer
Hubbard Dairy Fertilizer
Hubbard Double Strength Fertilizer
Hubbard Garden Fertilizer
Hubbard General Crop Fertilizer
Hubbard General Crop Fertilizer with 1.2 Magnesium
Hubbard Golf Course Fertilizer 8-6-2
Hubbard Golf Course Fertilizer 10-6-4
Hubbard High Potash Fertilizer
Hubbard Hi-Organic 6-8-8
Hubbard Hi-Organic 6-12-12
Hubbard Hi-Top Fertilizer
Hubbard Muriate of Potash
Hubbard Potato Fertilizer
Hubbard Potato Fertilizer with 1.2 Magnesium
Hubbard Potato Fertilizer with Sulphate of Potash
Hubbard Sulphate of Ammonia
Hubbard Superphosphate
Hubbard Tobacco Grower
Hubbard Tobacco Starter
Hubbard Top Dressing
Hubbard Valley Brand
Hubbard Vegetable Fertilizer
Hubbard Weed-Kil Lawn Food

Ruhm Phosphate & Chemical Co., P. O. Box 361, Columbia, Tenn.
Red Seal Brand RUHM'S PHOSPHATE ROCK

St. Louis National Stockyards Co., Exchange Bldg., National Stock Yards, Ill.
Wizard Brand Cow Manure
Wizard Brand Sheep Manure

O. M. Scott & Sons Co., Marysville, Ohio
Scotts Organic Fertilizer
Scotts Turf Builder
Scotts Weed & Feed

Sears, Roebuck & Company, 925 South Homan Ave., Chicago 7, Ill.
Cross Country Azalea Food
Cross Country Bone Meal
Cross Country Bulb Food
Cross Country Cattle Manure
Cross Country Economy Fertilizer
Cross Country Evergreen Food
Cross Country Hi-Organic
Cross Country Instant Rose Food
Cross Country Instant Tomato Food
Cross Country Lawn Food
Cross Country Plant Food
Cross Country Rose Food
Cross Country Sheep Manure
Cross Country Sulphate of Ammonia
Cross Country Wat-R-Mix

Sewerage Commission of the City of Milwaukee, P. O. Box 2079, Milwaukee 1, Wis.
Milorganite

The Sherwin-Williams Co., 101 Prospect Ave., N. W., Cleveland, Ohio
Sherwin-Williams 34% Linseed Oil Meal

M. L. Shoemaker, Div. Wilson & Co., Delaware Ave. & Venango St., Philadelphia, Pa.
M. L. Shoemaker "Swift-Sure" Tobacco Starter

Smith Equipment & Supply Co., 1615-21 N. Central Ave., Chicago 39, Ill.
Fertil-Ade No. 1

Soil Builders International Corp., 33 West 42 St., New York 36, N. Y.
Glorion

Wendell S. Still, Middle Country Rd., Selden, N. Y.
Farmanure

Super Lawn Corporation, 355 Clinton Place, Newark, N. J.
Super Lawn

Swift & Co., Plant Food Div., 165 Gore St., E. Cambridge 41, Mass.
Blenn
Brimm
Golden Vigoro
Instant Vigoro
Pasturgro 2-12-12
Pasturgro 5-10-10
Red Steer 0-10-20
Red Steer 0-15-30
Red Steer 0-20-20
Red Steer 5-8-7
Red Steer 5-10-10
Red Steer 6-8-8
Red Steer 8-16-16

Swift & Co., Plant Food Div., 165 Gore St., E. Cambridge 41, Mass. — Cont'd.

Red Steer 10-10-10
Special Golf 8-6-4
Vigoro
Vigoro Camellia & Azalea
Vigoro C. G.
Vigoro Plus Chlordane

Valley Feed & Supply Co., Inc., Union Rd., Spring Valley, N. Y.
Adorna**The Van Iderstine Co., 37-30 Review Ave., Long Island City, N. Y.**
Vico Steamed Bone Meal Fertilizer**The Virilium Corporation, Broad St., Medway, Mass.**
Virilium**Walker-Gordon Laboratory Co., Plainsboro, N. J.**
Bovung**Oscar F. Warner, 24 East Aurora St., Waterbury, Conn.**
Warner's Grubedizer
Warner's Lawn Fertilizer
Warner's Tree Food**Garfield Williamson Inc., 1072 Westside Ave., Jersey City 6, N. J.**
Perfect
Plantspur**F. H. Woodruff & Sons, Inc., 9 Depot St., Milford, Conn.**
Gro-Sod Lawn Food**Woodruff Fertilizer Works, Inc., Sackett Point Rd., No. Haven, Conn.**

Woodruff's 0-10-20 Fertilizer
Woodruff's 0-14-14 Fertilizer
Woodruff's 0-20-20 Fertilizer
Woodruff's 5-8-7 Fertilizer
Woodruff's 5-10-5 Fertilizer
Woodruff's 5-10-10 Fertilizer
Woodruff's 7-7-7 Fertilizer
Woodruff's Lawn & Tree Food 10-5-5
Woodruff's Muriate of Potash 60%
Woodruff's Special Mixture #9
Woodruff's Superphosphate 20%
Woodruff's Tobacco Fertilizer 6-3-6
Woodruff's Tobacco Starter

FERTILIZER INSPECTION FOR 1955

The Connecticut fertilizer law does not provide for *compulsory* limitation of the grades of fertilizer that may be sold in this State. It has in fact been the belief of this Station that no farmer should be prevented from purchasing any grade of fertilizer he wished, no matter how low in plant food units it might be or how ill adapted to the needs of his crops, so long as he made the purchase with his eyes open. However, because all authorities are agreed that a small number of grades can take care of all of the needs of agriculture, and that standardization on a few grades will promote economy in the manufacture of fertilizer and so help to keep prices down, ever since the compulsory limitation imposed by War Food Order No. 5 during World War II was revoked (on September 30, 1945) the New England agronomists have compiled lists of *recommended* fertilizer ratios and minimum grades.

On October 7, 1952 the agronomists and fertilizer dealers of southern New England met at Storrs and agreed upon the following list for the 1952-1953 season:

<i>Ratio</i>	<i>Minimum Grade</i>
0-1-1	0-14-14
0-1-2	0-10-20
1-1-1	8- 8- 8
1-1-3	5- 5-15 (Tobacco fertilizer)
1-2-1	5-10- 5
1-2-2	5-10-10
2-1-2	6- 3- 6 (Tobacco fertilizer)
3-4-4	6- 8- 8
4-3-1	8- 6- 2 (For maintenance of established turf)
5-8-7	5- 8- 7

This list was not changed for either the 1953-54 or the 1954-55 season.

That most Connecticut farmers realize the desirability of using recommended grades is shown by the fact that 78 per cent of the mixed fertilizers sold during the 1954-1955 season were of the recommended ratios and minimum grades. A fertilizer of a recommended 1-1-1 ratio but just under the minimum grade of 8-8-8, namely the 7-7-7, accounted for another 6 per cent.

During the past season the Station agent collected samples of all registered brands that could be found on the market. Certain fertilizer materials, particularly vegetable meals, are purchased almost wholly by tobacco growers for direct shipment in carload lots from outside the State. Most tobacco growers submit unofficial samples from each carload for analysis by this Station, but in addition an attempt is made by our agent to take official samples from as many of these shipments as possible. The total number of fertilizer samples of all kinds analyzed in 1955 was 890.

The following tabulation lists the total number of samples analyzed (both official and unofficial) of each class of fertilizer, as well as the tonnage sold in the period between July 1, 1954 and June 30, 1955 (these tonnage figures do not include fertilizer distributed under the Federal Agricultural Conservation Program):

CLASSIFICATION OF FERTILIZER MATERIALS AND
FERTILIZER TONNAGE

(Tonnage is for the period July 1, 1954 to June 30, 1955)

	Page	No. of samples	Tonnage
I. Containing chiefly nitrogen:			
Nitrate of ammonia	22	2	692
Nitrate of soda	22	8	449
Sulphate of ammonia	22	4	15
Cyanamid and urea	22	9	232
Castor pomace	23	9	3,870
Cottonseed meal	23	96	6,706
Horn and hoof meal	1
Linseed oil meal	24	10	369
Soybean oil meal	25	8	287
Other materials	25	4	389
			<hr/>
			13,009
II. Containing chiefly phosphoric acid:			
Superphosphate 18%	26	1	736
20%	26	16	4,417
46%	27	1	95
Precipitated bone	27	12	324
Phosphate rock	27	2	130
			<hr/>
			5,702
III. Containing chiefly potash:			
Muriate of potash	28	10	1,049
Sulphate of potash	28	8	143
Sulphate of potash-magnesia	28	1	120
Cottonhull ashes	28	19	687
			<hr/>
			1,999
IV. Containing nitrogen and phosphoric acid:			
Dry ground fish	30	11	374
Bone meal	30	22	733
Other materials	31	2	1,166
			<hr/>
			2,273
V. Containing nitrogen and potash:			
Nitrate of potash	28	4	99
			<hr/>
			99
VI. Mixed fertilizers:			
Commercial mixtures	32	260	55,333 ¹
Special and home mixtures	19	136	4,674
			<hr/>
			60,007
VII. Miscellaneous:			
Aluminum sulphate	64	2	8
Borax	64	1	45
Sheep and cattle manure	50	21	1,347
Limestone and similar materials	52	9
Fertilizers sold in small packages	53	100
Lawn sprays	62	19
Other miscellaneous materials	64	45	5
Check meals and fertilizers	21	37
			<hr/>
			1,405
Totals		890	<hr/>
			84,494

¹For distribution of this tonnage see next page.

Mixed Fertilizer Tonnage

Grades Approved for Connecticut

Grade	Tons	Grade	Tons
0-10-20	552	6- 8- 8	4,615
0-12-24	172	6-12-12	278
0-14-14	464	8- 4- 8	800
0-15-30	1,749	8- 6- 2	315
0-20-20	2,059	8- 8- 8	396
5- 5-15	531	8-16-16	2,350
5- 8- 7	3,364	10-10-10	4,280
5-10- 5	2,545	12-12-12	25
5-10-10	4,280	15-30-15	20
6- 3- 6	14,227		

Total 43,022

Other Grades
(50 tons or more)

2- 1- 1	82	6- 8- 2	159
3-12-12	378	6- 8- 6	93
4-10- 0	86	6-10- 4	1,533
4-10- 4	69	7- 7- 7	3,063
4-12- 4	158	7-10- 5	274
4-12- 8	66	8- 6- 4	643
4-16-20	69	8-12-12	1,154
5- 3- 5	730	9- 7- 4	846
5- 4- 4	310	10- 5- 5	256
5-15-15	52	10- 6- 2	225
5- 4- 0	483	10- 6- 4	643
6- 7- 4	281	12- 8- 4	75

Total 11,728

(Less than 50 tons)

0-20- 0	5	5- 4-15	27
2-12-12	43	5- 8- 6	37
3- 1- 1	9	5- 9- 6	19
3- 2- 1	37	6- 4- 7	26
4- 6- 4	18	7-11- 5	43
4- 8- 4	41	12- 4- 4	22
4- 8- 8	26	23-21-17	7
4-12-16	48	24-12-12	25
4.75- 4- 0	49	45- 0- 0	6
5- 4- 6	28	Other grades	67

Total 583

Grand Total 55,333

I. Materials Chiefly Valuable for Nitrogen

Eighty-seven per cent (11,414 tons) of the primarily nitrogenous fertilizers purchased for fertilizer use in Connecticut during the 1955 season were vegetable meals, mostly cottonseed meal; practically all of this material went onto tobacco fields. The other 13 per cent included ammonium and sodium nitrates, cyanamid, urea, and miscellaneous materials.

Analyses of the 69 official samples of nitrogenous fertilizers are given in Table 1. Sixty-two of these substantially met their guaranties; two samples each of cottonseed meal and urea, and one sample each of cyanamid, nitrate of ammonia and "Organo", were deficient.

II. Materials Chiefly Valuable for Phosphoric Acid

Analyses of 16 official samples of 20 per cent superphosphate and one

sample each of the 18 and 46 per cent grades are given in Table 2; all of these except the "triple" superphosphate met their guaranties. Five samples of precipitated bone and one of phosphate rock were all above guaranty.

III. Materials Chiefly Valuable for Potash

Nine official samples of muriate of potash, five of sulphate of potash and seven of cotton hull ashes were analyzed; analyses are given in Table 3. All samples except one each of muriate of potash and cotton hull ashes met their guaranties.

IV. Materials Supplying Nitrogen and Phosphoric Acid

This group consists chiefly of dry ground fish and bone meal. Guaranties of "available" phosphoric acid are not required of such natural organic products, and most of them bear guaranties of total nitrogen and total phosphoric acid only. Four official samples of dry ground fish, 19 of bone meal and one of "Milorganite" (a treated sewage sludge) were analyzed in 1955. The "Milorganite" and all four fish samples met all their guaranties, but four of the bone meals were deficient in nitrogen.

V. Materials Supplying Nitrogen and Potash

There is only one fertilizer material now on the market falling into this classification, namely, nitrate of potash. Fertilizer grade potassium nitrate is required to contain at least 12 per cent of nitrogen and 44 per cent of potash.

Two official samples, whose analyses are given in Table 3, both met their guaranties.

VI. Mixed Fertilizers

Commercial Mixtures

Analyses of 254 official samples of mixed fertilizers are given in Table 5. Results are summarized as follows:

Total number of samples		254
Samples deficient in:		
one item	70	
two items	11	81
Percentage of samples meeting all guaranties		68
Total guaranties made		722 ¹
Guaranties not met:		
nitrogen	54	
phosphoric acid	27	
potash	8	89
Percentage met		88

Eighty-eight per cent of all guaranties were substantially met or exceeded.

Seventeen official samples guaranteed magnesium (usually 1.2 per cent) as well as the major components; all of these met their guaranties except one. Three samples guaranteed boron (0.16 — 0.56%); there was no deficiency in this element.

¹Two hundred and fourteen samples with three guaranties and 40 samples with two guaranties (guaranties for minor elements not included).

Special and Home Mixtures

One hundred and thirty-six samples of special and home mixtures were analyzed during the year, the great majority for tobacco growers. Because the composition of these samples is not a matter of public interest, their analyses are not tabulated in this bulletin.

State Purchases of Fertilizer

Fertilizer materials and mixed goods supplied to State institutions on State purchase orders are regularly included in our annual inspection. Fertilizers so supplied are not exempt from payment of registration fees and tonnage taxes unless they are furnished to The Connecticut Agricultural Experiment Station for experimental purposes.

Samples representing State purchases are indicated in the several tables. They are summarized as follows:

<i>Materials</i>	<i>No. of Samples</i>	<i>Reference</i>
Supplying nitrogen	12	Table 1
Supplying phosphoric acid	5	Table 2
Supplying potash	5	Table 3
Supplying nitrogen and phosphoric acid	3	Table 4
Mixed fertilizers	28	Table 5
Sheep manure	1	Table 6
Total	54	

VII. *Miscellaneous*

Sheep and cattle manures. These products usually bear guaranties of nitrogen, total phosphoric acid and potash, although some brands guarantee "available" instead of total phosphoric acid. All except one of the 19 official samples analyzed during the 1954-1955 season met all their guaranties; the one deficient sample ("Premier-Nure") was low in all three components. Analyses are given in Table 6.

Limestone and similar materials. Because the legal definition of "commercial fertilizers" (G.S. 6733) specifically excludes "marl and lime", no regular inspection of liming materials is made. Occasional samples of limestone, hydrated lime and gypsum ("land plaster") are analyzed for farmers or state or federal agencies, and analyses of nine such samples are given in Table 7.

Fertilizers sold in small packages. Fertilizers sold only in packages of 10 pounds or less net weight are not required to be registered. No attempt, therefore, is made to sample all the small package fertilizers on the market, but such brands as come to the attention of our agent are picked up and analyzed as a matter of interest. During the 1954-1955 season 100 samples were analyzed, of which 74 met all their guaranties; this is a distinctly higher percentage than the 68 found for fertilizers sold in 100-lb. bags.

Analyses are given in Table 8.

Lawn sprays. A new method of selling fertilizers has entered the picture in recent years: Direct application to the customer's lawn as a dilute aqueous solution. This practice started in other parts of the country, and was practically unknown in Connecticut until this year. All of the firms so far engaging in this business have been oil dealers, whose objectives in entering the fertilizer field have apparently been as much or more to keep their drivers employed in the off-season as to make additional profits.

These dealers were interested in this project by representatives of a small group of firms who have recently gone into the business of making concentrated liquid fertilizers that are designed to be diluted 100 times with water and then sprayed on lawns. These manufacturers succeeded in convincing the oil dealers that they could keep their oil trucks busy in warm weather (when there was little demand for fuel oil) by loading them with diluted liquid fertilizer which they would apply to the lawns of clients whom they could persuade to pay for this custom service.

While technically the diluted product dispensed by each such oil dealer is a separate brand of fertilizer subject to individual registration and payment of the tonnage tax on the total quantity sold (including the weight of water added to dilute the concentrate), this Station has not been insisting on the letter of the statutes but has required only that the manufacturers of the concentrates register and pay tonnage taxes on their products and that the dealers furnish their customers statements that so many pounds of concentrate of specified analysis, and so many gallons of water, have been applied to their lawns. This policy was outlined in the following letter which was sent to dealers:

MARCH 18, 1955

DEAR MR. —:

I told you recently that I would write you shortly and inform you of our stand with regard to the registration of the diluted fertilizers that would actually be sold to customers where lawns were fertilized by spraying from oil trucks.

As I told you at the time, at the meeting of the Association of American Fertilizer Control Officials in Washington last October the consensus seemed to be that the diluted products were fertilizers under the law, and as such should be subject to individual registration and payment of tonnage taxes. Since then, however, Mr. Kuzmeski of Massachusetts has proposed to treat the matter differently, and Mr. Osgood of Maine concurs in his view. Under these circumstances we would not want to penalize Connecticut dealers by a stricter application of the law, and have therefore decided to follow the Massachusetts practice, which is as follows:

(1). The *undiluted* liquid fertilizer must be registered by the manufacturer, and he must pay the 6-cent tonnage tax on all of this fertilizer that is sold in Connecticut. In those cases where an out-of-state manufacturer does not pay the tonnage tax the dealer who uses his product will be responsible for such payment.

(2). The dealer must bill his customer for the quantity of *undiluted* fertilizer applied to the lawn, and the invoice must also show the quantity of water used. A sample invoice would be as follows:

“Sold to Mr. Jones:

50 lbs. 12-8-4 fertilizer

dissolved in 625 gallons of water.”

(3). The diluted fertilizer need not be registered by the dealer, and no tonnage tax will be exacted for the water used in dilution.

For control purposes our inspector may sample the diluted fertilizer to see that the customer is getting the stated amount of plant food.

Yours very truly,

HARRY J. FISHER
Chief Chemist

While the desirability of checking the composition of the diluted materials that have been dispensed in this fashion has been realized, it was obviously much more difficult for our inspector to catch oil trucks

on the way to a spraying job than it was for him to go to a warehouse and sample bagged fertilizers. He did nevertheless succeed in obtaining 19 diluted liquid fertilizer samples during the present season; these were analyzed with results as shown in Table 9. If diluted as intended these sprays should have contained 0.12 to 0.31 per cent of nitrogen, 0.08 to 0.20 per cent of phosphoric acid and 0.04 to 0.05 per cent of potash. The actual concentrations as shown by analysis were surprisingly close to guaranty, although 10 samples did show small deficiencies in nitrogen and two were slightly low in phosphoric acid.

Other miscellaneous materials. Forty-eight other miscellaneous products were examined; analyses are given in Table 10. Included are two official samples of aluminum sulphate and one of fertilizer borate. These were registered materials, but their analyses had to be placed in this table because they would not fit into Tables 1 — 6.

Check meals and fertilizers. Collaboration was continued with the check analysis programs sponsored by the American Oil Chemists' Society and the F. S. Royster Guano Company, and 11 samples were analyzed in connection with collaborative studies of methods for the determination of phosphoric acid and potash conducted by the Association of Official Agricultural Chemists of North America. Thirty-seven samples in all were analyzed under these various programs.

MAINTENANCE OF GUARANTIES

The maintenance of guaranties as compiled from analyses of ingredient materials and mixed goods (Tables 1 — 6) is shown in the following tabulation. Deficiencies of 0.1 per cent or less in nitrogen or 0.2 per cent or less in phosphoric acid and potash are not counted. The proportion of guaranties substantially met was 89 per cent.

	No. of samples	No. of guaranties	Deficiencies
Nitrate of ammonia	2	2	1
Nitrate of soda	8	8	0
Sulphate of ammonia	4	4	0
Cyanamid	4	4	1
Urea	4	4	2
Castor pomace	8	8	0
Cottonseed meal	29	29	2
Linseed oil meal	4	4	0
Soybean oil meal	3	3	0
Miscellaneous nitrogenous materials	3	3	1
Superphosphate	18	18	1
Precipitated bone	5	5	0
Phosphate rock	1	1	0
Muriate of potash	9	9	1
Nitrate of potash	2	2	0
Sulphate of potash	5	5	0
Cotton hull ashes	7	7	1
Dry ground fish	4	8	0
Bone meal	19	38	4
"Milorganite"	1	2	0
Mixed fertilizer	254	722	89
Sheep and cattle manure	19	57	3
Aluminum sulphate	2	2	0
Borax	1	1	0
Totals	416	946	106
Per cent guaranties met			89

TABLE 1. ANALYSES OF MATERIALS SUPPLYING CHIEFLY NITROGEN¹

Station No.	Manufacturer or jobber	Sampled from stock of	Per cent nitrogen	
			Found	Guaranteed
Nitrate of Ammonia				
3415 ²	AEROPRILLS, American Cyanamid Co., New York, N. Y.	Cheshire: Connecticut Reformatory	33.44	33.50
3504 ²	AEROPRILLS, American Cyanamid Co., New York, N. Y.	Southbury: Southbury Training School	32.72	33.50
Nitrate of Soda				
4007 ³	Arcadian, The American. Allied Chemical & Dye Corp., New York, N. Y.	Windsorville: Apothecaries Hall Co.	16.08	16.00
4047 ⁴	Arcadian, Allied Chemical & Dye Corp., New York, N. Y. ..	West Haven: New Haven Rendering Co.	16.00	16.00
3369 ⁵	Chilean, Champion Brand. Chilean Nitrate Sales Corp., New York, N. Y.	Windsor: Imperial Agricultural Corp.	16.06	16.00
3416 ^{2,6}	Chilean, Champion Brand. Chilean Nitrate Sales Corp., New York, N. Y.	Cheshire: Connecticut Reformatory	16.00	16.00
3505 ^{2,7}	Chilean, Champion Brand. Chilean Nitrate Sales Corp., New York, N. Y.	Southbury: Southbury Training School	16.06	16.00
3546 ⁸	Chilean, Natural. Chilean Nitrate Sales Corp., New York, N. Y.	Bethel: Eastern States Farmers' Exchange, Inc.	16.00	16.00
3656 ^{2,9}	Chilean, Natural, Champion Brand. Chilean Nitrate Sales Corp., New York, N. Y.	Norwich: Norwich State Hospital	15.90	16.00
4079	G & O Goulard & Olena, Inc., Skillman, N. J.	Hartford: Cadwell & Jones, Inc.	16.00	16.00
Sulphate of Ammonia				
3655 ²	Allied Chemical & Dye Corp., New York, N. Y.	Norwich: Norwich State Hospital	20.80	20.60
3755 ²	Allied Chemical & Dye Corp., New York, N. Y.	Somers: N. G. Osborn Prison Farm	20.90	20.60
4075	Lebanon Chemical Corp., Lebanon, Pa.	Hartford: Cadwell & Jones, Inc.	21.06	20.50
4112	Hubbard. The Rogers & Hubbard Co., Portland, Conn. ..	Portland: The Rogers & Hubbard Co.	20.58	20.50
Cyanamid				
3421 ²	AERO. American Cyanamid Co., New York, N. Y.	Cheshire: Connecticut Reformatory	20.10	20.00
3537 ²	AERO. American Cyanamid Co., New York, N. Y.	Meriden: Connecticut School for Boys	19.94	20.00

¹Deficiencies are in bold face type.
²State Purchases.
³Sodium guaranteed, 26.0%; found, 26.74%.
⁴Sodium guaranteed, 26.0%; found, 26.65%.
⁵Sodium guaranteed, 26.0%; found, 26.41%.
⁶Sodium guaranteed, 26.0%; found, 26.62%.
⁷Sodium guaranteed, 26.0%; found, 26.47%.
⁸Sodium guaranteed, 26.0%; found, 26.37%.
⁹Sodium guaranteed, 26.0%; found, 26.63%.

TABLE 1. ANALYSES OF MATERIALS SUPPLYING CHIEFLY NITROGEN¹

Station No.	Manufacturer or jobber	Sampled from stock of	Per cent nitrogen	
			Found	Guaranteed
3657 ²	AERO. American Cyanamid Co., New York, N. Y.	Norwich: Norwich State Hospi- tal	20.14	20.00
3781	Garden. American Cyanamid Co., New York, N. Y.	New Canaan: Silliman's Inc. ..	19.32	20.00
Urea				
3960	"Arcadian". Allied Chemical & Dye Corp., New York, N. Y.	Glastonbury: E. J. Bantle	45.00	45.00
4005	"Arcadian". Allied Chemical & Dye Corp., New York, N. Y.	Windsorville: Apothecaries Hall Co.	45.60	45.00
3753 ²	DU PONT NU GREEN. E. I. du Pont de Nemours & Co., Inc., Wilmington, Del.	Somers: N. G. Osborn Prison Farm	44.20	45.00
3935	DU PONT NU GREEN. E. I. du Pont de Nemours & Co., Inc., Wilmington, Del.	North Haven: Woodruff Ferti- lizer Works Inc.	44.80	45.00
Castor Pomace				
4185	Apothecaries Hall Co., Water- bury, Conn.	Windsorville: Apothecaries Hall Co.	5.80	4.50
3731	Eastern States Farmers' Ex- change, Inc., West Springfield, Mass.	Rockville: Ellington-Vernon Farmers' Exchange, Inc.	6.24	5.50
3367	Old Deerfield Fertilizer Co., Inc., South Deerfield, Mass.	Windsor: Imperial Agricultural Corp.	6.03	5.50
3368	Old Deerfield Fertilizer Co., Inc., South Deerfield, Mass.	Windsor: Imperial Agricultural Corp.	6.03	5.50
4191	O & W. Olds & Whipple Inc., Hartford, Conn.	East Hartford: Olds & Whipple Inc.	6.00	4.50
3514 ²	Hubbard. The Rogers & Hub- bard Co., Portland, Conn. ..	Middletown: Long Lane School	6.00	4.50
3366	Spencer Kellogg & Sons Inc., Buffalo, N. Y.	Windsor: Imperial Agricultural Corp.	5.65	5.50
3700	Spencer Kellogg & Sons Inc., Buffalo, N. Y.	Manchester: Larsen's Hardware	6.26	5.55
Cottonseed Meal				
3354	Cow-Eta Brand 41%. Ashcraft- Wilkinson Co., Atlanta, Ga. ..	West Suffield: Hatheway & Steane Corp.	6.58	6.56
4104	Cow-Eta Brand 41%. Ashcraft- Wilkinson Co., Atlanta, Ga. ..	East Hartford: Olds & Whipple Inc.	7.00	6.56
3397	Pure Gold 41%. The Boswell Co., Atlanta, Ga.	Simsbury: Cullman Bros., Inc. .	6.66	6.56
3398	Pure Gold 41%. The Boswell Co., Atlanta, Ga.	Simsbury: Cullman Bros., Inc. .	6.58	6.56
3399	Pure Gold 41%. The Boswell Co., Atlanta, Ga.	Simsbury: Cullman Bros., Inc. .	6.50	6.56
3400	Pure Gold 41%. The Boswell Co., Atlanta, Ga.	Simsbury: Cullman Bros. Inc. .	6.66	6.56

¹Deficiencies are in bold face type.²State Purchases.

TABLE 1. ANALYSES OF MATERIALS SUPPLYING CHIEFLY NITROGEN¹

Station No.	Manufacturer or jobber	Sampled from stock of	Per cent nitrogen	
			Found	Guaranteed
3405	Pure Gold 41%. The Boswell Co., Atlanta, Ga.	Granby: Cullman Bros., Inc. ..	6.63	6.56
4187	Buckeye 41%. Buckeye Cotton Oil Co., Cincinnati, Ohio ...	Windsorville: Apothecaries Hall Co.	6.50	6.56
3936	Cocke-Sure 36%. Cocke and Co., Atlanta, Ga.	North Haven: Woodruff Fertilizer Works, Inc.	5.80	5.76
4121	Cocke-Sure 36%. Cocke and Co., Atlanta, Ga.	North Haven: Woodruff Fertilizer Works, Inc.	6.10	5.76
4142	Cocke-Sure 36%. Cocke and Co., Atlanta, Ga.	Norwalk: Libner Grain Co., Inc.	6.10	5.76
3347	Cocke-Sure 41%. Cocke and Co., Atlanta, Ga.	Hazardville: L. B. Haas & Co.	6.43	6.56
3348	Cocke-Sure 41%. Cocke and Co., Atlanta, Ga.	West Suffield: Hatheway & Steane Corp.	6.89	6.56
3355	Cocke-Sure 41%. Cocke and Co., Atlanta, Ga.	West Suffield: Hatheway & Steane Corp.	6.35	6.56
3356	Cocke-Sure 41%. Cocke and Co., Atlanta, Ga.	West Suffield: Hatheway & Steane Corp.	6.50	6.56
3357	Cocke-Sure 41%. Cocke and Co., Atlanta, Ga.	West Suffield: Hatheway & Steane Corp.	6.50	6.56
3409	Cocke-Sure 41%. Cocke and Co., Atlanta, Ga.	Hazardville: L. B. Haas & Co.	6.60	6.56
3411	Cocke-Sure 41%. Cocke and Co., Atlanta, Ga.	Hazardville: L. B. Haas & Co.	6.55	6.56
3413	Cocke-Sure 41%. Cocke and Co., Atlanta, Ga.	Hazardville: L. B. Haas & Co.	6.59	6.56
3779	G & O. Goulard & Olena, Inc., Skillman, N. J.	New Canaan: Silliman's, Inc. ..	6.78	6.70
3358	Dixie Brand 41%. Humphreys-Godwin Co., Memphis Tenn.	Windsor: Imperial Agricultural Corp.	6.60	6.56
3361	Dixie Brand 41%. Humphreys-Godwin Co., Memphis, Tenn.	Windsor: Imperial Agricultural Corp.	6.78	6.56
3362	Dixie Brand 41%. Humphreys-Godwin Co., Memphis, Tenn.	Windsor: Imperial Agricultural Corp.	6.68	6.56
3933	Dixie Brand 41%. Humphreys-Godwin Co., Memphis, Tenn.	North Haven: Woodruff Fertilizer Works, Inc.	6.82	6.56
3973	Dixie Brand 41%. Humphreys-Godwin Co., Memphis, Tenn.	Glastonbury: E. J. Bantle	6.86	6.56
3370	"Lovit Brand" 41%. L. B. Lovitt & Co., Memphis, Tenn.	Bloomfield: The Hartman Tobacco Co.	6.54	6.56
3371	"Lovit Brand" 41%. L. B. Lovitt & Co., Memphis, Tenn.	Bloomfield: The Hartman Tobacco Co.	6.46	6.56
3372	"Lovit Brand" 41%. L. B. Lovitt & Co., Memphis, Tenn.	Bloomfield: The Hartman Tobacco Co.	6.99	6.56
3974	"Lovit Brand" 41%. L. B. Lovitt & Co., Memphis, Tenn.	Glastonbury: E. J. Bantle	6.82	6.56
Linseed Oil Meal				
3403	Archer Quality 36%. Archer-Daniels-Midland Co., Minneapolis, Minn.	Granby: Cullman Bros., Inc. ..	5.92	5.76

¹Deficiencies are in bold face type.

TABLE 1. ANALYSES OF MATERIALS SUPPLYING CHIEFLY NITROGEN¹

Station No.	Manufacturer or jobber	Sampled from stock of	Per cent nitrogen	
			Found	Guaranteed
3393	Sherwin-Williams 34%. Sherwin Williams Co., Cleveland, Ohio	Bloomfield: The Hartman Tobacco Co.	5.57	5.44
3410	Sherwin-Williams 34%. Sherwin Williams Co., Cleveland, Ohio	Hazardville: L. B. Haas & Co.	5.66	5.44
3349	Spencer Kellogg's 34%. Spencer Kellogg & Sons, Inc., Minneapolis, Minn.	West Suffield: Hatheway & Steane Corp.	5.54	5.44
Soybean Oil Meal				
3395	44%. Delphos Grain & Soya Products Co., Delphos, Ohio	Simsbury: Cullman Bros., Inc.	7.31	7.04
3396	44%. Delphos Grain & Soya Products Co., Delphos, Ohio	Simsbury: Cullman Bros., Inc.	7.28	7.04
3404	44%. Delphos Grain & Soya Products Co., Delphos, Ohio	Granby: Cullman Bros., Inc.	7.44	7.04
Miscellaneous				
4004 ³	A-N-L. Allied Chemical & Dye Corp., New York, N. Y.	Windsorville: Apothecaries Hall Co.	20.44	20.50
3630	Agrinite. The American Agricultural Chemical Co., N. Weymouth, Mass.	Southington: Louis Perillo Coal Co.	8.84	8.25
3928 ⁴	Organo. Old Fox Agricultural Sales Inc., East Providence, R. I.	Putnam: Putnam Farmers' Co-Op. Association, Inc.	4.74	5.00

¹Deficiencies are in bold face type.²State Purchases.³Magnesium guaranteed, 4.22%; found, 4.78%.⁴Found: nitrogen in ammonia, 0.40%; nitrogen, water-soluble, 0.38%; nitrogen, insoluble, 3.96%; activity of insoluble organic nitrogen, 66.00%.

3326	Old Fox Brand. Old Fox Agricultural Sales, Inc., East Providence, R. I.	Putnam: Putnam Farmers Co-Op. As- sociation, Inc.	0.23	20.35	20.12	20.00
3390	O & W. Olds & Whipple, Inc., Hartford, Conn. ..	Bloomfield: The Hartman Tobacco Co.	1.08	23.30	22.22	20.00
3389	O & W. Triple. Olds & Whipple, Inc., Hartford, Conn.	Bloomfield: The Hartman Tobacco Co.	2.20	46.20	44.00	46.00
3558	Hubbard 20%. The Rogers & Hubbard Co., Port- land, Conn.	Danbury: H. E. Meeker Hardware ...	0.25	21.40	21.15	20.00
3929	20%. Woodruff Fertilizer Works, Inc., North Haven, Conn.	North Haven: Woodruff Fertilizer Works, Inc.	1.15	22.45	21.30	20.00
Precipitated Bone Phosphate						
3351	Apothecaries Hall Co., Waterbury, Conn.	West Suffield: Hatheway & Steane Corp.	0.25	45.20	44.95	42.00
3394	Apothecaries Hall Co., Waterbury, Conn.	Simsbury: Cullman Bros., Inc.	0.20	45.70	45.50	42.00
3402	Apothecaries Hall Co., Waterbury, Conn.	Granby: Cullman Bros., Inc.	0.20	46.70	46.50	42.00
3408	Apothecaries Hall Co., Waterbury, Conn.	Hazardville: L. B. Haas & Co.	0.30	46.40	46.10	42.00
4192	Olds & Whipple, Inc., Hartford, Conn.	East Hartford: Olds & Whipple, Inc. .	0.60	42.60	42.00	38.00
Phosphate Rock						
3745 ³	AA Quality. The American Agricultural Chemical Co., North Weymouth, Mass.	Thompsonville: Brainard Nursery & Seed Co.	27.50	31.10	3.60	3.00

¹Deficiencies are in bold face type.²State Purchases.³Total phosphoric acid guaranteed, 30.0%.

TABLE 3. ANALYSES OF POTASH SALTS, ETC.¹

Station No.	Manufacturer or jobber	Sampled from stock of	Per cent potash	
			Found	Guaranteed
Muriate of Potash				
3422 ²	Consolidated Rendering Co., Boston, Mass.	Cheshire: Connecticut Reformatory	61.76	60.00
3683	The Davison Chemical Corp., Baltimore, Md.	New Milford: Checkerboard Feed Store	60.04	60.00
3430	Eastern States Farmers' Exchange, Inc., West Springfield, Mass.	North Haven: Eastern States Farmers' Exchange, Inc.	60.60	60.00
3542 ²	Eastern States Farmers' Exchange, Inc., West Springfield, Mass.	Newtown: Fairfield State Hospital	60.68	60.00
3774 ²	Eastern States Farmers' Exchange, Inc., West Springfield, Mass.	Somers: N. G. Osborn Prison Farm	61.04	60.00
3520 ²	Old Fox Agricultural Sales, Inc., East Providence, R. I.	Middletown: Conn. State Hospital	63.36	60.00
3912	Old Fox Agricultural Sales, Inc., East Providence, R. I.	Pawcatuck: The C. W. Campbell Co.	60.56	60.00
3645 ²	Olds & Whipple, Inc., Hartford, Conn.	Niantic: Farm for Women	61.68	60.00
3931	Woodruff Fertilizer Works, Inc., North Haven, Conn.	North Haven: Woodruff Fertilizer Works, Inc.	59.72	60.00
Nitrate of Potash				
4016 ³	Apothecaries Hall Co., Waterbury, Conn.	Windsorville: Apothecaries Hall Co.	45.40	44.00
3353 ⁴	Apothecaries Hall Co., Waterbury, Conn.	West Suffield: Hatheway & Steane Corp.	44.64	44.00
Sulphate of Potash				
3407	Apothecaries Hall Co., Waterbury, Conn.	Hazardville: L. B. Haas & Co. ..	22.36	22.00
3401	Old Deerfield Fertilizer Co., Inc., South Deerfield, Mass.	Simsbury: Cullman Bros., Inc. .	51.92	48.60
3963	Old Deerfield Fertilizer Co., Inc., South Deerfield, Mass.	Glastonbury: E. J. Bantle	49.36	48.60
3388	Olds & Whipple, Inc., Hartford, Conn.	Bloomfield: The Hartman Tobacco Co.	22.68	21.50
4190	Olds & Whipple, Inc., Hartford, Conn.	East Hartford: Olds & Whipple, Inc.	52.56	48.00
Cotton Hull Ashes				
3350	Apothecaries Hall Co., Waterbury, Conn.	West Suffield: Hatheway & Steane Corp.	43.32
3363	Apothecaries Hall Co., Waterbury, Conn.	Windsor: Imperial Agricultural Corp.	42.04
3412	Apothecaries Hall Co., Waterbury, Conn.	Hazardville: L. B. Haas & Co. .	41.00

¹Deficiencies are in bold face type.²State Purchases.³Nitrogen guaranteed, 13.0%; found, 13.20%.⁴Nitrogen guaranteed, 13.0%; found, 13.09%.

TABLE 3. ANALYSES OF POTASH SALTS, ETC.¹

Station No.	Manufacturer or jobber	Sampled from stock of	Per cent potash	
			Found	Guaranteed
3365	Old Deerfield 40%. Old Deerfield Fertilizer Co., Inc., South Deerfield, Mass.	Windsor: Imperial Agricultural Corp.	40.08	40.00
3964	Old Deerfield: Old Deerfield Fertilizer Co., Inc., South Deerfield, Mass.	Glastonbury: E. J. Bantle	32.56
3961	O & W. Olds & Whipple, Inc., Hartford, Conn.	Glastonbury: E. J. Bantle	32.74	33.00
3391	O & W. Olds & Whipple, Inc., Hartford, Conn.	Bloomfield: The Hartman Tobacco Co.	39.84	33.00

¹Deficiencies are in bold face type.

TABLE 4. ANALYSES OF GROUND FISH, BONE, ETC.¹

Station No.	Manufacturer or jobber	Sampled from stock of	Per cent nitrogen		Per cent phosphoric acid		Mechanical analyses (in percentage)	
			Ammonia Nitrate found	Total found	Total guaranteed	Total found	Finer than 1/50 inch	Coarser than 1/50 inch
Dry Ground Fish								
3352	Apothecaries Hall Co., Waterbury, Conn.	West Suffield: Hatheway & Steane Corp.	10.00	9.50	7.65	5.00	...
3392	O & W Menhaden. Olds & Whipple, Inc., Hartford, Conn.	Bloomfield: The Hartman Tobacco Co.	10.39	9.00	7.18	5.00	...
3406	O & W Menhaden. Olds & Whipple, Inc., Hartford, Conn.	Hazardville: L. B. Haas & Co.	10.33	9.00	7.40	5.00	...
3975	O & W Menhaden. Olds & Whipple, Inc., Hartford, Conn.	Glastonbury: E. J. Bantle	10.00	9.00	7.12	5.00	...
Bone Meal								
3792	Gro-Well. J. & L. Adikes, Inc., Jamaica, N. Y.	Darien: The Planters Barn	0.02	2.50	2.25	27.60	21.25	...
3943	The American Agricultural Chemical Co., North Weymouth, Mass.	Plantsville: C. A. Cowles, Inc.	0.04	2.38	1.50	26.90	25.00	46.5
3696	Apothecaries Hall Co., Waterbury, Conn.	Torrington: Big Y Feed Co.	0.03	2.01	2.25	30.95	22.00	...
4023	Green Gro Raw. Apothecaries Hall Co., Waterbury, Conn.	Greenwich: McArdle's Seed Co.	0.06	4.03	3.70	22.45	20.00	...
4003	Armour's. Armour Fertilizer Works, Carteret, N. J.	East Windsor Hill: Armour Fertilizer Works	2.56	2.30	25.90	23.00	56.0
3712 ²	Corenco. Consolidated Rendering Co., Boston, Mass.	Mansfield Depot: Mansfield State Training School	0.06	1.83	1.50	29.80	27.00	...

3501	Corenco. Consolidated Rendering Co., Boston, Mass.	Derby: Derby Feed Store	0.04	2.32	2.00	28.30	22.00
3509 ²	Corenco. Consolidated Rendering Co., Boston, Mass.	Southbury: Southbury Training School	0.04	2.53	2.00	26.55	22.00
3756 ²	Corenco. Consolidated Rendering Co., Boston, Mass.	Somers: N. G. Osborn Prison Farm	0.04	2.36	2.00	28.00	22.00	61.0	39.0
4052	Corenco. Consolidated Rendering Co., Boston, Mass.	West Haven: New Haven Rendering Co.	0.03	2.03	2.00	28.90	22.00	70.0	30.0
3682	The Davison Chemical Corp., Baltimore, Md.	New Milford: Checkerboard Feed Store	2.47	2.47	28.55	23.00
3905	Purc. Faesy & Besthoff, Inc., New York, N. Y.	Mystic: The C. W. Campbell Co.	1.81	2.47	29.65	23.00
3776	G & O Ground. Goulard & Olena, Inc., Skillman, N. J.	New Canaan: Silliman's, Inc.	0.06	2.47	2.40	27.52	20.00
4021	G & O Raw. Goulard & Olena, Inc., Skillman, N. J.	Greenwich: McArdle's Seed Co. . .	0.11	2.90	3.70	23.10	21.00
3651	Lebanon. Lebanon Chemical Corp., Lebanon, Pa.	New London: New London Grain Co.	0.06	2.55	2.30	24.80	20.00
3705	O & W. Olds & Whipple, Inc., Hartford, Conn.	Manchester: Blish Hardware Co., Co., Inc.	0.00	2.04	2.47	29.55	22.00	27.0	73.0
3969	O & W. Olds & Whipple, Inc., Hartford, Conn.	Glastonbury: E. J. Bantle	0.02	2.30	...	29.35	69.0	31.0
4059	Gro-Fast. The Rogers & Hubbard Co., Portland, Conn.	Milford: Associated Seed Growers, Inc.	0.18	2.73	2.00	27.85	23.00
3947	Vico Fertilizer. The Van Iderstine Co., Long Island City, New York	Thomaston: The Thomaston Supply Co.	0.00	2.71	2.47	26.90	23.00	64.0	36.0
3644	Sewerage Commission of the City of Milwaukee, Milwaukee, Wis.	Plainville: Sunshine Feed Store . .	0.00	5.74 ³	5.50	5.12 ⁴	4.00

Milorganite

¹Deficiencies are in bold face type.²State Purchases.³Found: nitrogen organic water-soluble, 0.54%; nitrogen organic insoluble, 5.20%.⁴Guaranteed "available" phosphoric acid, 4.0%; found, 4.27%.

TABLE 5. ANALYSES OF MIXED FERTILIZERS

Station No.	Manufacturer and brand	Place of sampling
Agricultural Supply Co. West Haven, Conn.		
3481	Yale Special Mixture 8-6-2	New Haven
The American Agricultural Chemical Co. North Weymouth, Mass.		
4181	A A Quality Fertilizer 0-20-20	East Granby
3981	A A Quality Fertilizer 4-12-16	Wapping
4165	A A Quality Fertilizer 5-5-15	Wapping
3620 ²	A A Quality Fertilizer 5-8-7	Portland
3688	A A Quality Fertilizer 5-8-7	New Milford
3506 ²	A A Quality Fertilizer 5-10-5	Southbury
3687	A A Quality Fertilizer 5-10-5	New Milford
3714 ²	A A Quality Fertilizer 5-10-5	Storrs
3503 ²	A A Quality Fertilizer 5-10-10	Southbury
3545 ²	A A Quality Fertilizer 5-10-10	Newtown
3658 ²	A A Quality Fertilizer 5-10-10	Norwich
3982	A A Quality Fertilizer 8-16-16	Wapping
4156	Agrico Country Club Fertilizer 6-10-4	West Haven
4151	Agrico Country Club 8-6-4	West Haven
4129	Agrico Country Club Fertilizer 10-6-4	Glenbrook
4127	Agrico for Broadleaf Evergreens 6-10-4	Darien
4180	Agrico for Corn 4-12-8	East Granby
3560	Agrico for Gardens 5-10-5	Branford
3561	Agrico for Lawns, Trees and Shrubs 6-10-4	Branford
3631	Agrico for New England 5-8-7	Southington
3976	Agrico for Potatoes 5-10-10 with 1.2 Magnesium	Wapping
3689	Agrico for Seeding Down 3-12-12	New Milford
4166	Agrico for Tobacco 6-3-6	Wapping
3979	Agrico for Top Dressing 7-7-7	Wapping
4157	Agrico for Top Dressing 10-10-10	West Haven
3977	Agrico for Truck 5-10-5	Wapping
3650	Agrico for Turf 6-8-2	New London
4160	Agrico for Turf 10-6-4	Bridgeport
3980	Agrico Phosphate and Potash 0-10-20	Wapping
3978	Agrico Rose Food 5-9-6	Wapping
American Liquid Fertilizer Co., Inc. Marietta, Ohio		
4360	Liqua-Vita 15-10-5	New Haven
Andrew-Wilson, Inc. Springfield, N. J.		
4024	Eureka Plant Food 4-8-5	Greenwich
Apothecaries Hall Co. Waterbury, Conn.		
3944	Green Gro All-Organic Plant Food 5-4-0	Bristol
4020	Green Gro Lawn Fertilizer 6-7-4	Greenwich

¹Deficiencies are in bold face type.²State Purchases.

CONTAINING NITROGEN, PHOSPHORIC ACID AND POTASH¹

Per cent nitrogen					Per cent phosphoric acid			Per cent potash		
In nitrates	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate-insoluble	Total	So-called "available"	As muriate	Total	Magnesium per cent
0.00	4.76	2.66	0.58	8.00	0.33	6.95	6.62	2.51	3.35	...
...	1.07	20.40	19.33	18.37	21.83	...
0.00	3.72	0.27	0.07	4.06	0.88	13.50	12.62	15.58	17.06	...
0.45	3.12	0.36	0.91	4.84	1.23	6.10	4.87	0.78	13.10	...
0.34	4.56	0.08	0.14	5.12	0.40	8.45	8.05	5.37	7.68	...
0.32	4.58	...	0.45	5.35	0.78	9.45	8.67	6.79	7.23	...
0.30	4.44	0.30	0.15	5.19	0.70	11.17	10.47	4.42	5.22	...
0.47	4.52	0.08	0.17	5.24	1.15	12.35	11.20	5.11	6.79	...
0.00	4.65	...	0.17	4.82	0.50	11.35	10.85	3.85	5.22	...
0.31	4.32	0.02	0.21	4.86	1.03	11.92	10.89	8.31	9.97	...
0.22	3.00	1.48	0.26	4.96	1.05	11.60	10.55	8.95	10.19	...
0.00	4.94	0.19	0.17	5.30	0.43	10.07	9.64	9.34	10.48	...
0.00	7.20	0.61	0.19	8.00	0.75	18.60	17.85	15.54	16.20	...
0.17	5.32	0.24	0.53	6.26	0.65	11.17	10.52	2.40	4.24	...
0.24	4.60	0.96	2.20	8.00	0.60	7.47	6.87	2.24	3.51	...
0.00	9.26	0.48	0.17	9.91	0.55	6.92	6.37	3.17	4.36	...
0.13	4.82	0.50	0.91	6.36	0.88	10.80	9.92	4.00	4.65	...
0.00	4.00	0.01	0.25	4.26	0.80	11.95	11.15	6.96	8.32	...
0.13	4.68	0.16	0.20	5.17	0.85	11.30	10.45	4.37	5.47	...
0.00	5.36	0.28	0.48	6.12	0.80	10.97	10.17	4.14	4.65	...
0.00	4.36	0.14	0.39	4.89	0.80	9.00	8.20	4.41	7.40	...
0.00	4.72	...	0.24	4.96	0.60	11.22	10.62	9.92	10.59	1.60
0.20	2.34	0.26	0.11	2.91	1.08	14.35	13.27	11.33	12.10	...
0.23	0.56	1.96	2.87	5.62	0.35	2.50	2.15	0.45	6.30	...
0.00	7.00	0.36	0.10	7.46	0.38	7.02	6.64	7.06	7.68	...
0.73	9.24	0.04	0.09	10.10	0.45	10.80	10.35	8.46	10.44	...
0.00	4.50	...	0.30	4.80	0.55	11.05	10.50	4.89	5.84	...
0.00	2.94	0.79	2.35	6.08	0.80	8.75	7.95	2.26	2.49	...
0.53	3.84	1.72	3.71	9.80	0.53	6.80	6.27	...	4.21	...
...	0.43	11.60	11.17	19.48	20.20	...
0.39	2.10	0.94	1.93	5.36	1.05	10.65	9.60	5.86	6.38	...
2.27	2.48	10.47	0.00	15.22	10.90	...	5.31	...
0.00	1.92	0.04	2.16	4.12	0.75	10.07	9.32	3.08	5.70	...
0.00	0.18	0.04	5.34	5.56	1.13	7.17	6.04
0.00	4.38	1.02	1.38	6.78	0.38	9.17	8.79	4.14	4.68	...

TABLE 5. ANALYSES OF MIXED FERTILIZERS

Station No.	Manufacturer and brand	Place of sampling
3948	Liberty Fertilizer 0-10-20	Watertown
4182	Liberty Fertilizer 0-14-14	Windsorville
4010	Liberty Fertilizer 0-20-20	Windsorville
3616	Liberty Fertilizer 3-12-12	East Haddam
4176	Liberty Fertilizer 4-12-4	Suffield
3694	Liberty Fertilizer 5-10-5	Torrington
3424	Liberty Fertilizer 5-10-10	Cheshire
4009	Liberty Fertilizer 5-10-10 with 1.2 Magnesium ..	Windsorville
4011	Liberty Fertilizer 6-8-8 with 1.2 Magnesium ...	Windsorville
4183	Liberty Fertilizer 8-16-16	Windsorville
3617	Liberty Fertilizer 10-10-10	East Haddam
3426	Liberty Green Gro Fertilizer 6-7-4	Mt. Carmel
3427	Liberty High Grade Market Gardener's 5-8-7 ...	Mt. Carmel
4128	Liberty Landscape and Golf Course Fertilizer 8-6-2	Glenbrook
3915	Liberty Special Fertilizer for Fruit and Grass 7-7-7	Norwich
4184	Liberty Super Spud Special Potato Fertilizer 6-8-8 with 1.2 Magnesium	Windsorville
4188	Liberty Tobacco Mixture Fertilizer 5-5-15	Windsorville
4186	Liberty Tobacco Mixture 6-3-6 with 1.2 Mag- nesium	Windsorville
Armour Fertilizer Works, Carteret, N. J.		
3983	Armour All Organic 5-5	East Windsor Hill ...
4002	Armour Big Crop Fertilizer 0-20-20	East Windsor Hill ...
3922	Armour Big Crop Fertilizer 5-8-7	Bolton Notch
4000	Armour Big Crop Fertilizer 5-10-5	East Windsor Hill ...
4172	Armour Big Crop Fertilizer 5-10-10	East Windsor Hill ...
3642	Armour Big Crop Fertilizer 7-7-7	Plainville
4167	Armour Gold Bond Tobacco Grower 6-3-6	East Windsor Hill ...
3921	Armour Vertagreen Plant Food 5-10-5	Bolton Notch
3984	Armour Vertagreen Plant Food 5-10-5	East Windsor Hill ...
3920	Armour Vertagreen Plant Food for Commercial Crops 6-12-12	Bolton Notch
4001	Armour Vertagreen Plant Food for Commercial Crops 8-8-8	East Windsor Hill ...
4063	Armour Vertagreen Plant Food for Commercial Crops 8-8-8	Wilson
3942	Armour Vertagreen 10-6-4 Plant Food for Profes- sional Use	Plantsville
Associated Seed Growers, Inc. Milford, Conn.		
4057	Asgrow Lawn Food 10-6-4	Milford
4056	Japedizer 8-6-4	Milford
H. J. Baker & Bro. New York, N. Y.		
3789	Nitroganic 5-4-0	Stamford
4120	Nitroganic 5-4-0	North Haven

¹Deficiencies are in bold face type.

CONTAINING NITROGEN, PHOSPHORIC ACID AND POTASH¹

Per cent nitrogen					Per cent phosphoric acid			Per cent potash		
In nitrates	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate-insoluble	Total	So-called "available"	As muriate	Total	Magnesium per cent
...	0.50	11.42	10.92	16.15	20.97	...
...	0.58	14.90	14.32	14.85	16.46	...
...	0.40	17.20	16.80	18.27	21.60	...
0.68	2.44	0.10	0.00	3.22	0.45	13.07	12.62	11.43	13.12	...
0.00	3.24	0.67	0.41	4.32	1.08	13.97	12.89	4.17	4.97	...
0.27	4.36	0.44	0.51	5.58	1.23	11.62	10.39	5.40	5.84	...
0.64	4.06	0.06	0.42	5.18	0.53	11.75	11.22	8.62	10.33	...
0.71	4.44	0.01	0.30	5.46	0.50	11.00	10.50	8.26	10.37	1.72
0.48	5.36	0.28	0.32	6.44	0.35	9.12	8.77	5.22	8.66	1.68
0.17	0.96	5.04	0.12	6.29	0.58	15.32	14.74	16.12	17.05	...
0.51	8.88	0.30	0.34	10.03	0.33	11.30	10.97	9.50	11.89	...
0.00	4.72	0.66	1.40	6.78	0.28	8.95	8.67	3.47	4.24	...
0.33	4.50	0.24	0.33	5.40	0.25	9.25	9.00	6.08	7.74	...
0.00	6.70	0.81	1.11	8.62	0.43	7.10	6.67	2.10	3.01	...
0.37	6.22	0.42	0.41	7.42	0.43	8.47	8.04	4.54	7.33	...
0.51	6.24	0.35	7.10	0.38	8.22	7.84	5.94	7.74	1.28
0.00	0.44	3.51	1.55	5.50	0.40	5.35	4.95	0.54	16.33	...
0.36	0.44	1.76	2.99	5.55	0.40	4.32	3.92	0.39	6.79	2.16
0.00	0.30	2.52	2.18	5.00	...	6.70
...	0.95	18.10	17.15	18.61	21.62	...
0.17	4.10	0.40	0.30	4.97	0.63	9.30	8.67	4.10	7.20	...
0.54	4.06	0.38	0.07	5.05	0.78	11.45	10.67	4.93	5.07	...
0.53	4.06	0.12	0.24	4.95	0.88	12.12	11.24	7.12	9.65	...
0.69	6.06	0.04	6.79	0.73	8.65	7.92	5.06	7.77	...
0.00	0.08	3.22	3.00	6.30	0.40	3.42	3.02	1.12	6.86	...
0.00	4.66	0.18	0.20	5.04	0.53	10.92	10.39	2.86	6.35	...
0.11	4.82	0.17	5.10	0.58	11.42	10.84	3.52	6.24	...
0.57	4.90	0.02	0.16	5.65	0.70	12.82	12.12	4.97	12.04	...
0.46	7.00	0.24	7.70	0.43	8.97	8.54	7.97	8.45	...
1.19	5.90	0.54	0.18	7.81	0.73	9.20	8.47	7.24	7.57	...
0.31	7.27	0.48	1.85	9.91	0.65	8.00	7.35	2.43	4.92	...
0.41	3.18	3.60	1.94	9.13	0.73	8.75	8.02	4.17	4.87	...
0.39	3.88	2.24	1.83	8.34	0.55	7.42	6.87	4.91	5.13	...
1.99	0.08	0.36	2.15	4.58	0.95	5.97	5.02
0.00	0.00	0.39	4.70	5.09	1.30	6.67	5.37

TABLE 5. ANALYSES OF MIXED FERTILIZERS

Station No.	Manufacturer and brand	Place of sampling
The F. A. Bartlett Tree Expert Co. Stamford, Conn.		
3787	Bartlett Green Tree Food 6-8-6	Stamford
Joseph Breck & Sons Corp. Boston, Mass.		
4035	Breck's Turf-Gro 8-6-2	Stamford
California Spray-Chemical Corp. South Plainfield, N. J.		
3916	ORTHO-GRO Liquid Plant Food 10-5-5	Windsorville
Consolidated Rendering Co. Boston, Mass.		
4049	Corenco 0-10-20 Hay and Pasture Special	West Haven
4216	Corenco 0-14-14 Top Dresser	West Haven
4214	Corenco 0-15-30	West Haven
4195	Corenco 0-20-20 Legume Special	West Haven
4050	Corenco 4-12-4 Complete Manure	West Haven
4048	Corenco 4-12-16 Ladino Special	West Haven
4174	Corenco 5-5-15 Tobacco Starter	Springfield, Mass
3516 ²	Corenco 5-8-7 Potato and General Crop	Middletown
3788	Corenco 5-8-7 Potato and General Crop	Stamford
3923	Corenco 5-10-5 Home Garden Fertilizer	Dayville
3500	Corenco 5-10-5 Onion Special Super Truck	Derby
3925	Corenco 5-10-10 Peerless Potato Fertilizer	Danielson
4217	Corenco 5-10-10 Peerless Potato with 1.2 Mag- nesium	West Haven
4175	Corenco 6-3-6 Perfection Tobacco Grower	Springfield, Mass
4173	Corenco 6-3-6 Premium Tobacco Grower	Springfield, Mass
3418 ²	Corenco 6-8-8 Potato Special	Cheshire
4215	Corenco 6-8-8 Potato Special with 1.2 Magnesium	West Haven
3924	Corenco 7-7-7 Complete Fruit and Top Dressing	Dayville
3432	Corenco 8-6-4 Landscape Fertilizer	North Haven
3730	Corenco 8-16-16 Two in One	Rockville
3508 ²	Corenco 10-5-5 Fertilizer	Southbury
3522 ²	Corenco 10-6-2 Fertilizer	New Britain
3622 ²	Corenco 10-6-4 Fertilizer	Portland
3544 ²	Corenco 10-10-10 Fertilizer	Newtown
4194	Corenco 10-10-10 Fertilizer	West Haven
4219	Corenco Liquid-Green 10-5-5	West Haven
3736	Corenco Organic Turf Fertilizer 4.75-4-0	Thompsonville
Davey Tree Expert Co. Kent, Ohio		
4032	Davey Tree Food 12-4-4	Old Greenwich
R. G. Davis & Sons New Haven, Conn.		
3487	Organo 10-5-5 Lawn and Shrub Fertilizer	New Haven

¹Deficiencies are in bold face type.
²State Purchases.

CONTAINING NITROGEN, PHOSPHORIC ACID AND POTASH¹

Per cent nitrogen				Per cent phosphoric acid			Per cent potash			Magnesium per cent
In nitrates	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate- insoluble	Total	So-called "available"	As muriate	Total	
0.00	4.56	0.97	0.51	6.04	0.65	9.42	8.77	4.86	6.55	...
0.77	5.08	0.56	1.87	8.28	0.25	7.00	6.75	0.17	2.06	...
0.00	0.34	9.54	0.00	9.88	0.13	5.30	5.17	4.86	...
...	0.53	11.30	10.77	10.36	17.16	...
...	0.53	13.75	13.22	13.65	16.93	...
...	0.40	14.25	13.85	28.38	31.18	...
...	0.48	20.50	20.02	18.07	19.70	...
0.54	3.04	0.43	0.25	4.26	0.98	13.00	12.02	4.21	...
1.01	3.06	0.18	0.11	4.36	0.63	13.12	12.49	10.36	16.50	...
0.00	0.16	2.77	2.03	4.96	0.23	5.65	5.42	0.78	17.32	...
1.37	3.60	0.05	0.17	5.19	0.30	9.00	8.70	6.06	7.33	...
0.68	3.40	0.46	0.26	4.80	0.33	9.17	8.84	5.76	7.23	...
0.80	3.72	0.28	0.29	5.09	0.63	10.70	10.07	5.02	5.87	...
1.03	3.60	0.04	0.13	4.80	0.63	11.30	10.67	2.47	5.73	...
0.65	3.72	1.00	0.13	5.50	0.55	11.07	10.52	9.51	11.20	...
1.38	3.74	0.14	5.26	0.55	10.10	9.55	8.53	10.82	1.35
0.00	0.10	2.16	3.62	5.88	0.25	3.42	3.17	0.31	6.69	...
0.00	0.24	2.99	2.99	6.22	0.18	4.00	3.82	0.32	6.07	...
1.30	4.36	0.28	0.11	6.05	0.45	8.65	8.20	5.38	8.36	...
1.32	4.04	0.14	5.50	0.45	9.02	8.57	5.94	9.25	1.25
0.95	5.88	0.36	0.12	7.31	0.28	7.90	7.62	6.95	7.44	...
0.13	4.54	2.52	0.60	7.79	0.38	7.42	7.04	5.33	5.94	...
1.14	5.62	0.22	0.27	7.25	0.35	14.85	14.50	12.78	16.24	...
0.10	9.36	0.58	0.17	10.21	0.23	6.30	6.07	3.25	5.08	...
0.63	9.16	0.10	0.13	10.02	0.28	6.90	6.62	1.87	2.49	...
0.00	5.00	3.85	1.74	10.59	0.28	7.15	6.87	3.72	4.87	...
0.76	8.52	0.44	0.25	9.97	0.43	11.75	11.32	7.37	10.44	...
1.50	7.64	0.22	9.36	0.10	10.10	10.00	7.06	10.01	...
10.10	0.00	0.20	0.00	10.30	...	5.42	5.42	3.89	5.31	...
0.00	0.12	0.47	4.86	5.45	0.83	6.45	5.62
1.22	10.08	0.38	0.70	12.38	0.45	5.37	4.92	3.09	4.39	...
0.00	6.52	2.54	1.29	10.35	0.25	6.17	5.92	4.40	6.04	...

TABLE 5. ANALYSES OF MIXED FERTILIZERS

Station No.	Manufacturer and brand	Place of sampling
The Davison Chemical Corp. Baltimore, Md.		
3679	Davco Granulated Fertilizer 0-10-20	New Milford
3685	Davco Granulated Fertilizer 0-20-20	New Milford
3716	Davco Granulated Fertilizer 0-20-20	Willimantic
3680	Davco Granulated Fertilizer 4-12-16	New Milford
3726	Davco Granulated Fertilizer 5-8-7	Willimantic
3684	Davco Granulated Fertilizer 5-10-5	New Milford
3715	Davco Granulated Fertilizer 5-10-5	Willimantic
3662	Davco Granulated Fertilizer 5-10-10	Norwich
3659	Davco Granulated Fertilizer 10-10-10	Norwich
Eastern States Farmers' Exchange, Inc. West Springfield, Mass.		
3686 ²	Eastern States 0-15-30 with 0.2 Boron	New Milford
3429	Eastern States 0-20-20	North Haven
3693	Eastern States 5-10-10 with 1.2 Magnesium	Torrington
4109	Eastern States 8-4-8 Tobacco with 1.2 Magnesium ..	South Windsor
3428	Eastern States 8-12-12 L. C. with 1.2 Magnesium ..	North Haven
3663	Eastern States 8-16-16 with 0.6 Magnesium	Norwich
3554	Eastern States 10-10-10 with 0.6 Magnesium	Bethel
The Espoma Company Millville, N. J.		
4018	Espoma 3-2-1	Greenwich
4022	Holly-Tone 4-6-4	Greenwich
Fertilene Corp. of America New York, N. Y.		
4275	Fertilene Liquid Fertilizer 15-10-5	Hartford
4367	Fertilene Liquid Fertilizer 15-10-5	New Haven
4370	Fertilene Liquid Fertilizer 15-10-5	Waterbury
Fiestar, Inc. Roslyn Heights, N. Y.		
4019	Fiestar 1-1-0	Greenwich
Godfrey's Garden Shop Fairfield, Conn.		
4145	Godfrey's 5-10-5 Professional Fertilizer	Fairfield
Goulard & Olena, Inc. Skillman, N. J.		
4082	G & O Go-Weed and Turf Food 6-10-4	Hartford
3775	G & O Hyganic 10-6-4	New Canaan
3777	G & O Prizegro 5-10-5	New Canaan
3780	G & O Rhodo-Azalea-Camelia-Holly-Blueberry Food 3-20-3	New Canaan
4146	Godfrey's No-Filler 10-6-4	Fairfield

¹Deficiencies are in bold face type.²Boron found 0.28%.

CONTAINING NITROGEN, PHOSPHORIC ACID AND POTASH¹

Per cent nitrogen					Per cent phosphoric acid		Per cent potash			Magnesium per cent
In nitrates	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate- insoluble	Total	So-called "available"	As muriate	Total	
...	0.75	11.05	10.30	20.32	22.78	...
...	1.13	22.05	20.92	19.74	21.98	...
...	0.93	21.75	20.82	16.96	20.72	...
0.00	3.68	0.03	0.01	3.72	0.45	13.30	12.85	17.42	19.02	...
...	5.00	0.04	5.04	0.55	14.05	13.50	4.97	7.37	...
0.00	4.68	0.00	0.06	4.74	0.43	11.10	10.67	4.41	5.54	...
0.00	4.74	0.14	0.09	4.97	0.45	11.07	10.62	3.49	4.91	...
0.00	5.00	0.10	5.10	0.40	10.75	10.35	9.64	10.30	...
0.47	8.42	0.32	0.08	9.29	0.48	10.65	10.17	8.13	10.82	...
...	0.40	15.25	14.85	28.53	31.38	...
...	0.50	20.75	20.25	16.60	21.05	...
1.30	3.56	0.16	0.11	5.13	0.25	11.55	11.30	11.07	11.70	1.36
1.68	0.40	3.40	2.88	8.36	0.20	4.20	4.00	0.27	8.63	2.97
1.90	6.24	0.00	0.13	8.27	0.35	12.25	11.90	1.16	12.81	1.84
1.63	6.06	0.20	0.14	8.03	0.48	16.62	16.14	13.37	16.20	1.20
1.43	8.00	0.42	0.18	10.03	0.28	11.22	10.94	9.26	10.66	1.18
0.00	2.06	0.79	1.44	4.25	0.35	4.15	3.80	1.63	2.49	...
0.00	2.88	0.43	1.39	4.70	0.45	6.87	6.42	2.59	4.15	...
0.72	4.03	9.43	0.00	14.18	9.72	4.17	5.22	...
0.00	3.25	7.21	0.00	10.46	15.77	5.38	...
0.44	3.64	11.18	0.00	15.26	9.55	2.76	5.63	...
0.00	0.12	0.03	0.94	1.09	0.15	1.53	1.38
0.61	3.58	0.12	0.69	5.00	0.68	10.90	10.22	2.95	5.25	...
0.00	5.36	0.29	0.74	6.39	0.70	11.57	10.87	3.05	4.59	...
0.10	5.30	1.12	1.70	8.22	0.55	9.35	8.80	5.44	6.18	...
0.00	2.64	2.12	0.55	5.31	0.88	11.30	10.42	7.64	8.69	...
0.34	3.00	0.72	1.10	5.16	0.60	14.45	13.85	6.84	7.54	...
0.00	6.34	2.12	0.90	9.36	0.35	7.12	6.77	4.24	5.77	...

TABLE 5. ANALYSES OF MIXED FERTILIZERS

Station No.	Manufacturer and brand	Place of sampling
Lawn-Tex, Inc. Chicago, Ill.		
3485	Organi-Green 5-4-0	New Haven
Lebanon Chemical Corp. Lebanon, Pa.		
4069	Lebanon Fertilizer 5-10-10	Hartford
4076	Lebanon Fertilizer 10-6-4	Hartford
3794	Lebanon Plant Food 5-10-5	Darien
3793	Lebanon Rose Food 7-7-7	Darien
4077	Lebanon Top Crop Complete Plant Food 9-9-9 .	Hartford
4081	Lebanon Turf Organic 5-4-0	Hartford
Liquilawn, Inc. New York, N. Y.		
4364	Liquilawn 12-8-4	West Haven
The Mamlon Company New Haven, Conn.		
4227	Fer-Mel General Purpose Plant Food 18-18-18 ..	New Haven
4226	Fer-Mel Turf and Tree Food 24-12-12	New Haven
Monsanto Chemical Co. St. Louis, Mo.		
4276	Folium 20-20-20	Hartford
McArdle's Seed Co. Greenwich, Conn.		
4017	McArdle's Hi Organic No-Filler 10-6-4	Greenwich
Old Deerfield Fertilizer Co. South Deerfield, Mass.		
4177	Old Deerfield 5-5-15 Tobacco Starter	West Suffield
3951	Old Deerfield 5-8-7 Fertilizer	Glastonbury
3953	Old Deerfield 5-10-5 Fertilizer	Glastonbury
3950	Old Deerfield 5-10-10 Fertilizer	Glastonbury
4178	Old Deerfield 6-3-6 Tobacco Fertilizer	West Suffield
4179	Old Deerfield 6-3-6 Tobacco Fertilizer with 1.20 Magnesium	West Suffield
3967	Old Deerfield 6-3-6 Tobacco Fertilizer with 1.20 Magnesium	Glastonbury
3952	Old Deerfield 7-7-7 Fertilizer	Glastonbury
Old Fox Agricultural Sales, Inc. East Providence, R. I.		
3911	Old Fox Brand 0-12-24	Pawcatuck
3543 ²	Old Fox Brand 0-20-20	Newtown

¹Deficiencies are in bold face type.²State Purchases.

CONTAINING NITROGEN, PHOSPHORIC ACID AND POTASH¹

Per cent nitrogen					Per cent phosphoric acid			Per cent potash		
In nitrates	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate-insoluble	Total	So-called "available"	As muriate	Total	Magnesium per cent
0.00	0.16	0.53	5.03	5.72	1.30	7.10	5.80
1.21	3.10	0.18	0.14	4.63	0.15	10.20	10.05	7.57	11.24	...
0.67	7.44	0.88	0.09	9.08	0.45	7.57	7.12	2.36	4.46	...
1.26	3.24	0.06	0.10	4.66	0.28	9.85	9.57	6.33	6.86	...
0.41	5.06	0.34	1.48	7.29	0.55	7.22	6.67	6.06	7.23	...
0.99	6.52	0.40	0.17	8.08	0.33	10.50	10.17	4.24	9.42	...
0.00	0.00	0.53	4.80	5.33	1.30	5.95	4.65
0.00	2.93	7.84	0.00	10.77	7.85	3.37	4.15	...
0.00	3.80	14.23	0.03	18.06	0.05	17.45	17.40	1.78	22.60	...
1.92	2.90	20.10	0.00	24.92	0.05	11.77	11.72	13.33	14.84	...
6.52	5.32	8.13	0.15	20.12	0.10	19.95	19.85	20.72	...
0.60	6.26	2.34	0.50	9.70	0.40	6.57	6.17	4.17	5.10	...
0.85	2.34	0.10	1.57	4.86	0.55	6.82	6.27	1.47	16.97	...
0.55	3.60	0.78	0.23	5.16	0.33	9.57	9.24	5.70	7.33	...
0.00	2.80	1.86	0.36	5.02	0.50	11.12	10.62	5.13	5.57	...
0.58	2.48	1.58	0.36	5.00	0.68	11.77	11.09	8.23	10.22	...
0.58	0.24	2.52	3.41	6.75	0.25	3.37	3.12	0.81	7.57	...
1.07	0.14	2.18	3.06	6.45	0.33	4.22	3.89	0.65	6.82	2.57
0.00	0.36	2.45	4.60	7.41	0.25	3.70	3.45	0.23	6.08	1.44
0.42	5.70	0.80	0.25	7.17	0.43	8.47	8.04	5.35	7.57	...
...	0.20	12.17	11.97	18.63	25.30	...
...	0.35	20.40	20.05	18.13	22.67	...

TABLE 5. ANALYSES OF MIXED FERTILIZERS

Station No.	Manufacturer and brand	Place of sampling
3711 ²	Old Fox Brand 0-20-20	Mansfield Depot
3910	Old Fox Brand 0-20-20	Pawcatuck
3654	Old Fox Brand 5-8-7	Groton
3754 ²	Old Fox Brand 5-8-7	Somers
3927	Old Fox Brand 5-10-5 Garden Food	Putnam
3419 ³	Old Fox Brand 5-10-10	Cheshire
3519 ²	Old Fox Brand 5-10-10	Middletown
3653	Old Fox Brand 5-10-10	Groton
3652	Old Fox Brand 7-7-7	Groton
3713 ²	Old Fox Brand 7-7-7	Storrs
3908	Old Fox Brand 8-6-2 Turf Food	Pawcatuck
Olds & Whipple, Inc. Hartford, Conn.		
3420 ^{2, 3}	O & W 0-20-20 Fertilizer with 0.11 Boron	Cheshire
3507 ²	O & W 0-20-20 Fertilizer	Southbury
4108	O & W 4-8-4 Complete Lawn and Grass Fertilizer .	East Hartford
4086	O & W 4-12-4 Market Garden Fertilizer	East Hartford
4084	O & W 5-3-5 Complete Tobacco Fertilizer	East Hartford
4106	O & W 5-5-15 High Grade Tobacco Starter and Potash Compound	East Hartford
4103	O & W 5-8-6 Luxura	East Hartford
3702	O & W 5-8-7 Potato and General Purpose Fertilizer	Manchester
3958	O & W 5-8-7 Potato and General Purpose Fertilizer	Glastonbury
3701	O & W 5-10-5 Fertilizer	Manchester
3954	O & W 5-10-10 Potato Fertilizer	Glastonbury
4105	O & W 5-10-10 Potato Fertilizer with 1.2 Mag- nesium	East Hartford
4083	O & W 6-3-6 Blue Label Tobacco Fertilizer	East Hartford
4107	O & W 6-8-8 Special Potato Fertilizer	East Hartford
3417 ²	O & W 7-7-7 Top Dressing and Grass Fertilizer ...	Cheshire
3541 ²	O & W 7-7-7 Top Dressing and Grass Fertilizer ...	Newtown
4189	O & W 8-12-12 High Grade General Purpose Fertilizer with 1.8 Magnesium	East Hartford
4085	O & W 10-6-4 Luxura	East Hartford
4102	O & W Nitro-Gro 4-4-0	East Hartford
The Frank S. Platt Co. New Haven, Conn.		
3484	Platt's Concentrated 10-5-5 Lawn Fertilizer	New Haven
4218	Platt's Concentrated 10-5-5 Lawn Fertilizer	West Haven
The Rackliffe Oil Co. New Britain, Conn.		
4193	Lawn-Ade 15-10-5	New Britain
Ra-Pid-Gro Corp. Dansville, N. Y.		
3751 ²	Ra-Pid-Gro 23-21-17	Somers

¹Deficiencies are in bold face type.²State Purchases.³Boron found, 0.16%.

CONTAINING NITROGEN, PHOSPHORIC ACID AND POTASH¹

Per cent nitrogen					Per cent phosphoric acid			Per cent potash		
In nitrates	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate-insoluble	Total	So-called "available"	As muriate	Total	Magnesium per cent
...	0.43	20.85	20.42	12.91	21.22	...
...	0.23	20.95	20.72	13.86	21.40	...
0.26	4.92	0.36	0.08	5.62	0.55	9.27	8.72	6.40	7.77	...
0.77	4.64	0.42	0.09	5.92	0.65	9.05	8.40	7.41	8.32	...
0.70	4.48	0.06	0.09	5.33	0.98	11.15	10.17	6.31	6.75	...
0.58	4.48	0.12	0.12	5.30	0.48	11.00	10.52	8.31	10.82	...
0.37	4.52	0.18	0.05	5.12	0.63	11.22	10.59	7.20	10.33	...
0.48	4.68	0.06	5.22	0.73	10.87	10.14	10.09	11.09	...
0.31	6.78	0.10	0.10	7.29	0.30	8.62	8.32	7.17	7.61	...
0.56	6.46	0.07	7.09	0.53	8.65	8.12	8.84	9.47	...
0.50	5.50	0.22	1.88	8.10	0.63	6.57	5.94	1.79	2.22	...
...	0.53	20.95	20.42	15.46	22.68	...
...	0.68	21.05	20.37	20.49	22.42	...
0.99	2.62	0.24	0.65	4.50	0.60	9.05	8.45	2.99	4.84	...
0.18	3.80	0.25	0.30	4.53	0.83	13.85	13.02	2.78	4.55	...
0.63	0.10	1.90	3.15	5.78	0.33	3.70	3.37	0.42	5.03	...
1.57	0.12	4.48	1.04	7.21	0.45	5.85	5.40	1.82	15.86	...
0.46	2.80	1.36	1.38	6.00	0.50	8.50	8.00	6.28	6.96	...
0.62	4.52	0.22	0.35	5.71	0.25	8.92	8.67	6.61	7.77	...
0.00	4.56	0.72	0.40	5.68	0.25	9.07	8.82	7.18	7.98	...
0.64	4.82	0.02	0.39	5.87	0.42	10.42	10.00	4.79	6.18	...
0.12	4.12	0.64	0.50	5.38	0.30	11.17	10.87	10.31	10.70	...
0.20	4.28	0.48	0.51	5.47	0.48	11.47	10.99	4.38	10.70	2.56
0.85	0.10	1.82	3.40	6.17	0.28	3.72	3.44	0.50	6.26	...
0.23	4.84	0.60	0.55	6.22	0.35	8.85	8.50	6.14	9.00	...
0.87	6.00	0.26	0.37	7.50	0.18	7.40	7.22	6.63	7.98	...
0.79	6.06	0.22	0.38	7.45	0.28	7.75	7.47	5.60	8.12	...
3.27	6.00	0.23	9.50	0.38	11.60	11.22	12.06	13.67	0.64
0.23	4.32	3.74	1.93	10.22	0.40	6.57	6.17	3.48	5.03	...
0.00	0.04	0.34	3.94	4.32	1.25	6.02	4.77
0.00	6.24	2.64	1.06	9.94	0.33	6.15	5.82	5.34	6.35	...
0.60	6.42	2.22	0.90	10.14	0.45	5.90	5.45	4.59	6.11	...
1.62	2.74	10.16	0.00	14.52	9.75	5.73	...
5.64	3.04	14.60	0.00	23.28	...	16.50	19.60	...

TABLE 5. ANALYSES OF MIXED FERTILIZERS

Station No.	Manufacturer and brand	Place of sampling
The Rogers & Hubbard Co.		
Portland, Conn.		
4058	Gro-Fast Acid Fertilizer 4-10-4	Milford
3523	Gro-Fast All Organic Fertilizer 5-4-0	Berlin
4423	Gro-Fast All Organic Fertilizer 5-4-0	Cromwell
3613	Gro-Fast Plant Food 5-10-5	Centerbrook
4161	Gro-Fast Rose Food 7-10-5	Bridgeport
4236	Gro-Fast Sol 16-20-16	Portland
4228	Hubbard 0-20-20	Portland
4229 ³	Hubbard Alfalfa Fertilizer 0-14-14 with 0.55% Boron	Portland
4230	Hubbard Alfalfa Fertilizer 0-14-14	Portland
4116	Hubbard Climax Tobacco Fertilizer 5-3-5	Portland
4233	Hubbard Dairy Fertilizer 0-10-20	Portland
4234	Hubbard Double Strength Fertilizer 8-16-16	Portland
3515 ²	Hubbard Garden Fertilizer 5-10-5	Middletown
3626	Hubbard Garden Fertilizer 5-10-5	Meriden
3612	Hubbard General Crop Fertilizer 5-10-10	Centerbrook
4235	Hubbard General Crop Fertilizer 5-10-10 with 1.2 Magnesium	Portland
4115	Hubbard Golf Course Fertilizer 8-6-2	Portland
3414 ²	Hubbard Golf Course Fertilizer 10-6-4	New Haven
3513 ²	Hubbard Golf Course Fertilizer 10-6-4	Middletown
4231	Hubbard High Potash Fertilizer 5-10-10	Portland
4117	Hubbard Hi Organic 6-8-8	Portland
4114	Hubbard Hi Organic 6-12-12	Portland
3735	Hubbard Hi Top Fertilizer 10-10-10	Somers
4402	Hubbard Hi Top Fertilizer 10-10-10	Portland
3614	Hubbard 6-8-8 for Potatoes	Deep River
4232	Hubbard 6-8-8 for Potatoes	Portland
4118	Hubbard 6-8-8 for Potatoes with 1.2 Magnesium	Portland
4111	Hubbard Tobacco Grower 6-3-6	Portland
4110	Hubbard Tobacco Starter 5-5-15	Portland
3607	Hubbard Top Dressing 7-7-7	Clinton
4113	Hubbard Valley Brand 6-3-6	Portland
3518	Hubbard Vegetable Fertilizer 5-8-7	Middletown
4131	Hubbard Weed-Kil Lawn Food 6-10-4	Darien
O. M. Scott & Sons Co.		
Marysville, Ohio		
3477	Scott's Organic Plant Food 5-2-3	Hamden
3557	Scott's Turf Builder 9-7-4	Danbury
3623	Scott's Weed and Feed 7-11-5	Middletown
Sears, Roebuck & Co.		
Chicago, Ill.		
4141	Cross Country Lawn Food 5-4-0	Norwalk
4008	Cross Country Plant Food 5-10-5	Windsorville

¹Deficiencies are in bold face type.
²State Purchases.
³Found 0.56% Boron.

CONTAINING NITROGEN, PHOSPHORIC ACID AND POTASH¹

Per cent nitrogen				Per cent phosphoric acid			Per cent potash			Magnesium per cent
In nitrates	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate- insoluble	Total	So-called "available"	As muriate	Total	
0.00	2.00	1.78	1.03	4.81	0.50	11.20	10.70	3.15	4.30	...
0.00	0.68	0.31	4.11	5.10	1.20	6.55	5.35
0.00	0.04	4.96	5.32	1.15	6.20	5.05
0.49	2.24	1.44	1.05	5.22	0.58	11.50	10.92	4.66	5.80	...
0.22	2.88	2.12	1.48	6.70	1.43	13.97	12.54	0.33	5.22	...
1.44	5.46	9.14	0.02	16.06	0.05	20.50	20.45	16.32	19.70	...
...	0.28	18.75	18.47	21.39	21.83	...
...	0.19	14.27	14.08	12.95	15.00	...
...	0.23	14.52	14.29	9.16	15.43	...
0.92	0.14	1.48	3.25	5.79	0.16	2.20	2.04	0.29	5.77	...
...	0.18	10.57	10.39	18.65	20.97	...
0.56	6.22	0.44	0.20	7.42	0.50	17.50	17.00	12.15	15.27	...
1.23	3.76	0.16	0.19	5.34	0.45	11.17	10.72	4.89	5.87	...
1.26	3.62	0.18	0.29	5.35	1.10	12.07	10.97	4.53	5.47	...
1.13	3.76	0.18	0.11	5.18	0.55	11.50	10.95	9.12	10.40	...
1.17	3.88	0.26	0.11	5.42	0.38	11.10	10.72	7.89	10.04	2.01
0.82	3.14	1.98	1.56	7.50	0.43	7.87	7.44	2.51	3.67	...
0.58	4.52	2.32	2.18	9.60	0.38	7.42	7.04	3.52	4.43	...
0.00	4.84	2.62	2.15	9.61	0.45	7.32	6.87	3.73	4.71	...
0.76	2.52	0.86	0.86	5.00	0.38	11.25	10.87	9.38	10.82	...
0.64	3.00	1.30	1.13	6.07	0.40	9.45	9.05	1.14	8.45	...
0.54	3.32	1.14	1.08	6.08	0.53	12.37	11.84	8.09	12.24	...
1.01	7.92	0.06	0.12	9.11	0.35	12.67	12.32	6.73	10.26	...
0.97	8.42	0.14	0.18	9.71	0.35	10.12	9.77	9.93	11.32	...
0.74	4.48	0.52	0.24	5.98	0.45	9.22	8.77	7.17	8.01	...
0.95	4.90	0.15	6.00	0.38	9.35	8.97	6.64	8.35	...
0.84	4.76	0.12	0.16	5.88	0.48	9.90	9.42	6.33	8.32	2.73
0.92	0.40	2.24	3.36	6.92	0.28	3.30	3.02	0.32	6.59	...
1.59	0.34	2.54	1.03	5.50	0.18	5.57	5.39	0.52	14.92	...
0.55	6.00	0.50	0.19	7.24	0.33	8.42	8.09	6.92	7.71	...
0.84	0.04	3.28	3.14	7.30	0.23	3.23	3.00	0.52	6.38	...
0.75	4.16	0.08	0.27	5.26	0.78	9.97	9.19	7.41	8.08	...
0.00	3.96	0.54	0.92	5.42	0.60	12.15	11.55	3.41	4.62	...
0.00	0.64	0.61	4.15	5.40	0.23	3.40	3.17	1.63	4.68	...
0.00	7.64	0.04	1.72	9.40	0.43	8.70	8.27	4.77	5.50	...
0.00	3.96	0.25	2.74	6.95	0.43	12.62	12.19	4.37	6.11	...
0.00	0.08	0.32	4.96	5.36	...	6.47
0.44	5.00	0.22	0.28	5.94	0.50	10.65	10.15	5.58	8.18	...

TABLE 5. ANALYSES OF MIXED FERTILIZERS

Station No.	Manufacturer and brand	Place of sampling
	M. L. Shoemaker Co., Inc Div. Wilson & Co. Philadelphia, Pa.	
3959	Shoemaker's "Swift-Sure" 4-10-0	Glastonbury
	Smith Equipment & Supply Co. Chicago, Ill.	
4238	Fertil-Ade No. 1 10-8-6	East Hartford
	Soil Builders International Corp. New York, N. Y.	
4225	Glorion 4-8-8	Westville
	Super Lawn Corp. Newark, N. J.	
4279	Super Lawn Liquid Fertilizer 12-8-4	Hartford
4240	Super Lawn Liquid Fertilizer 12-8-4	East Hartford
	Swift & Co. Boston, Mass.	
3538	Golden Vigoro 6-10-4	Newtown
3727	Golden Vigoro 6-10-4	Willimantic
3556 ²	Swift's Red Steer Brand Plant Food 5-8-7	Danbury
3621 ²	Swift's Red Steer Brand Plant Food 10-6-2	Portland
3517	Vigoro 6-10-4	Middletown
4126	Vigoro 6-10-4	Darien
	Valley Feed & Supply Co., Inc. Spring Valley, N. Y.	
4036	Adorna 3-1-1	Stamford
	The Virilium Corp. Medway, Mass.	
4373	Virilium 12-8-4	Waterbury
4274	Virilium 12-8-4	Portland
4272	Virilium 12-8-4	New Haven
	Oscar F. Warner Waterbury, Conn.	
4164	Warner's Grubedizer 8-6-4	Waterbury
4162	Warner's Lawn Food 8-6-4	Waterbury
4163	Warner's Tree Food 12-6-4	Waterbury
	Garfield Williamson, Inc. Jersey City, N. J.	
4130	Plantspur 4-4-2	Darien
	F. H. Woodruff & Sons, Inc. Milford, Conn.	
4062	Gro-Sod Lawn Food 10-6-4	Milford

¹Deficiencies are in bold face type.

²State Purchases.

CONTAINING NITROGEN, PHOSPHORIC ACID AND POTASH¹

Per cent nitrogen					Per cent phosphoric acid			Per cent potash		
In nitrates	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate-insoluble	Total	So-called "available"	As muriate	Total	Magnesium per cent
0.88	3.08	0.10	0.62	4.68	0.75	13.05	12.30
0.00	3.34	6.56	0.00	9.90	7.92	3.43	6.35	...
0.60	2.60	0.36	0.64	4.20	0.85	8.75	7.90	5.96	6.86	...
0.16	3.33	7.98	0.04	11.51	8.37	4.30	4.49	...
0.00	3.32	8.19	0.00	11.51	8.20	3.07	5.07	...
0.38	1.36	1.16	3.36	6.26	1.23	11.85	10.62	0.13	4.39	...
0.47	1.40	0.82	3.50	6.19	1.05	12.07	11.02	0.20	4.36	...
1.05	3.46	0.18	0.20	4.89	0.38	9.22	8.84	6.33	7.03	...
0.67	8.76	0.30	0.22	9.95	0.33	7.05	6.72	1.94	3.86	...
0.48	4.00	0.16	0.14	4.78	0.73	10.87	10.14	4.02	5.57	...
0.46	4.78	0.14	0.38	5.76	0.90	11.27	10.37	3.36	4.52	...
0.00	0.16	0.03	3.23	3.42	1.80	3.25	1.45	0.92	1.58	...
2.11	5.59	5.09	0.00	12.79	8.60	3.09	4.55	...
2.44	5.15	5.08	0.00	12.67	8.97	4.59	...
2.42	5.23	5.08	0.00	12.73	9.12	3.17	4.59	...
0.00	1.96	3.40	2.50	7.86	0.50	7.67	7.17	4.36	4.62	...
0.00	4.12	1.92	2.02	8.06	0.43	8.40	7.97	3.71	5.00	...
0.58	5.84	4.44	1.22	12.08	0.38	7.02	6.64	3.43	4.81	...
0.00	4.28	0.06	0.98	5.32	0.50	5.40	4.90	2.50	3.32	...
0.58	7.00	1.96	9.54	0.78	8.15	7.37	2.39	4.52	...

TABLE 5. ANALYSES OF MIXED FERTILIZERS

Station No.	Manufacturer and brand	Place of sampling
Woodruff Fertilizer Works, Inc. North Haven, Conn.		
3937	Woodruff's Fertilizer 0-10-20	North Haven
4119	Woodruff's Fertilizer 0-14-14	North Haven
4122	Woodruff's Fertilizer 0-20-20	North Haven
3564	Woodruff's Fertilizer 5-8-7	Guilford
4123	Woodruff's Fertilizer 5-10-10	North Haven
4124	Woodruff's Fertilizer 7-7-7	North Haven
4376	Woodruff's Fertilizer 7-7-7	North Haven
3435	Woodruff's 10-5-5 Lawn and Tree Food	Hamden
3932	Woodruff's Special Mixture #9 9-9-9	North Haven
3938	Woodruff's Tobacco Fertilizer 6-3-6	North Haven
3934	Woodruff's Tobacco Starter 5-5-15	North Haven

¹Deficiencies are in bold face type.

CONTAINING NITROGEN, PHOSPHORIC ACID AND POTASH¹

Per cent nitrogen					Per cent phosphoric acid			Per cent potash		
In nitrates	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate-insoluble	Total	So-called "available"	As muriate	Total	Magnesium per cent
...	0.95	10.95	10.00	14.45	19.06	...
...	0.60	13.60	13.00	15.64	17.83	...
...	0.50	22.40	21.90	19.32	25.20	...
9.00	4.26	0.50	0.30	5.06	0.55	9.05	8.50	6.59	7.54	...
0.36	4.30	0.30	0.20	5.16	0.45	11.02	10.57	9.67	10.33	...
0.80	5.72	0.34	0.18	7.04	0.55	7.55	7.00	4.53	7.74	...
0.16	6.38	0.42	0.15	7.11	0.45	7.60	7.15	4.25	7.64	...
0.13	2.44	7.56	0.61	10.74	0.05	6.80	6.75	4.97	5.54	...
1.20	4.18	2.50	0.17	8.05	0.43	9.72	9.29	7.48	10.82	...
1.50	0.24	0.86	2.92	5.52	0.18	3.05	2.87	0.28	7.95	...
2.10	0.06	1.86	1.02	5.04	0.15	5.75	5.60	0.23	15.94	...

TABLE 6. ANALYSES OF SHEEP MANURE, ETC.¹

Station No.	Manufacturer and brand	Place of sampling
4034	Gro-Well Cow Manure. J & L Adikes, Jamaica, N. Y.	Stamford: Leon Ezzell, Inc.
3640	Pulverized Sheep Manure. The American Agricultural Chemical Co., North Weymouth, Mass. ²	Southington: Louis Perillo Coal Co.
3695	Liberty Sheep Manure. Apothecaries Hall Co., Waterbury, Conn.	Torrington: Big Y Feed Co.
3941	Armour Sheep Manure. Armour Fertilizer Works, Carteret, N. J.	Plantsville: C. A. Cowles, Inc.
4158	DRICONURE. Atkins & Durbrow, Inc., New York, N. Y.	Bridgeport: Willis Seed Store
4041	Corenco Dried Cow Manure. Consolidated Rendering Co., Boston, Mass.	West Haven: New Haven Rendering Co.
3488	Corenco Sheep Manure. Consolidated Rendering Co., Boston, Mass.	New Haven: R. G. Davis & Sons
3510 ²	Corenco Sheep Manure. Consolidated Rendering Co., Boston, Mass.	Southbury: Southbury Training School
4033	Davey Shredded Cattle Manure. Davey Tree Expert Co., Kent, Ohio	Old Greenwich: Davey Tree Expert Co.
4080	Lebanon Cow Manure. Lebanon Chemical Corp., Lebanon, Pa.	Hartford: Cadwell & Jones, Inc.
3649	Lebanon Sheep Manure. Lebanon Chemical Corp., Lebanon, Pa.	New London: New London Grain Co.
3906	Ramshorn Brand Sheep Manure. Natural Plant Food Co., Oklahoma City, Okla. ..	Mystic: The C. W. Campbell Co.
3699	Sheep Manure. Olds & Whipple, Inc., Hartford, Conn.	Manchester: Larsen's Hardware
4137	Premier-Nure. Premier Peat Moss Corp., New York, N. Y.	South Norwalk: The Roodner Grain Co.
3627	Gro Fast Sheep Manure. The Rogers & Hubbard Co., Portland, Conn.	Meriden: Church & Morse, Inc.
3737	Wizard Brand Cow Manure. St. Louis National Stockyards Co., National Stockyards, Ill.	Thompsonville: Brainard Nursery & Seed Co.
3423	Farmanure. Wendell S. Still, Selden, N. Y. ..	Cheshire: Cheshire Nursery, Inc.
3608	Bovung. Walker-Gordon Laboratory Co., Plainsboro, N. J.	Clinton: Clinton Nurseries ..
3909	Bovung. Walker-Gordon Laboratory Co., Plainsboro, N. J.	Pawcatuck: The C. W. Campbell Co.

¹Deficiencies are in bold face type.²State Purchases.³Guaranteed available, 1.00%.⁴Guaranteed available, 0.25%.

TABLE 6. ANALYSES OF SHEEP MANURE, ETC.¹

Per cent nitrogen					Per cent phosphoric acid				Per cent potash		
In ammonia	Organic water-soluble	Organic water-insoluble	Total found	Total guaranteed	Citrate-insoluble	Total found	Total guaranteed	So-called "available" found	Total found	Total guaranteed	Sand per cent
0.20	0.24	1.56	2.00	1.50	...	1.72	1.00	...	2.12	1.00	31.65
0.00	0.28	1.04	1.32	1.25	...	2.27	1.00	...	4.68	2.00	33.18
0.10	...	1.34	1.44	1.00	0.40	1.95	...	1.55 ⁴	4.62	1.00	33.07
0.06	...	1.63	1.69	1.25	...	1.97	1.00	...	2.40	2.00	29.23
0.40	0.36	1.24	2.00	1.00	0.33	2.55	...	2.22 ³	1.45	1.00	45.12
0.08	0.42	1.86	2.36	2.00	...	1.75	1.00	...	1.96	1.00	4.00
0.08	0.44	1.20	1.72	1.25	0.38	1.85	1.00	1.47 ³	4.78	2.00	30.13
0.04	0.67	1.13	1.84	1.25	0.40	2.25	1.00	1.85 ³	4.87	2.00	30.00
0.56	0.49	2.05	3.10	2.00	...	4.27	1.00	...	2.37	1.00	7.10
0.04	0.28	1.23	1.55	1.50	0.35	1.22	...	0.87 ³	2.12	2.00	48.65
0.16	0.51	1.45	2.12	1.50	0.35	1.35	...	1.00 ³	2.97	2.00	45.18
0.10	0.39	1.59	2.08	2.00	...	1.67	1.00	...	3.57	2.00	14.05
0.02	0.30	1.20	1.52	1.25	0.35	1.35	...	1.00 ³	3.38	2.00	32.61
0.06	0.18	0.48	0.72	2.00	...	0.65	1.00	...	0.53	1.00	15.91
0.08	0.17	1.06	1.31	1.25	...	1.35	1.00	...	3.41	2.00	31.35
0.14	0.32	1.70	2.16	2.00	0.45	2.40	...	1.95 ³	2.75	2.00	25.85
0.33	1.00	2.10	3.48	2.00	0.35	3.63	...	3.28 ³	2.09	1.00	3.00
0.12	0.53	1.55	2.20	2.00	0.18	1.67	1.00	1.49 ³	2.72	1.00	2.03
0.38	0.28	1.75	2.41	2.00	0.28	1.85	1.00	1.57 ³	2.25	1.00	1.77

TABLE 7. ANALYSES OF LIMESTONE AND SIMILAR MATERIALS¹

Station No.	Manufacturer or dealer and brand	Sampled from stock of or sent by	Calcium oxide, per cent Magnesium oxide, per cent			
			Guaranteed	Found	Guaranteed	Found
Apothecaries Hall Co., Waterbury, Conn.						
2262	Land Plaster	Suffield: Hatheway-Steane Corp.	34.63
Lee Lime Corp., Lee, Mass.						
3681	Tobey Agra Hydrate Lee Lime	New Milford: Checkerboard Feed Store	35.00	36.11	25.00	26.17
Manufacturer Unknown						
3436	Lime	Hartford: Stanley Papanos	1/3 avail.	67.80 ²	0.50
New England Lime Co., Canaan, Conn.						
2991	Agricultural Hydrated Lime	Simsbury: Cullman Bros., Inc.	47.00	46.08	31.00	28.10
2433	Hydrated Lime	Suffield: Hatheway-Steane Corp.	45.19
Olds & Whipple, Inc. Hartford, Conn.						
2511	Land Plaster	Simsbury: Cullman Bros., Inc.	34.00	33.13
2512	Land Plaster	Simsbury: Cullman Bros., Inc.	34.00	33.36
2595	Land Plaster	Simsbury: Cullman Bros., Inc.	34.00	33.32
2657	Land Plaster	Simsbury: Cullman Bros., Inc.	34.00	33.08

¹Deficiencies are in bold face type.

²Calcium carbonate, 54.58%; calcium oxide, 35.50%; calcium sulphate, 4.18%; water, 5.24%; passing 1/50" mesh sieve, 98.5%.

Atlas Chemical Co.
San Francisco, Calif.

3483	Atlas Fish Emulsion Fertilizer 5-1.3-1.5	0.21	0.54	4.35	0.53	5.63	0.03	1.50	1.47	1.80	1.80
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Brainard Nursery & Seed Co.
Thompsonville, Conn.

3746	For Your Garden Fertilizer Root Crop 5-10-10	1.34	3.86	0.30	5.50	0.75	12.10	11.35	9.23	10.93
3750	For Your Garden General Garden Fertilizer 5-10-5	1.07	3.60	0.10	0.28	5.05	0.45	11.90	11.45	5.84	8.05
3747	For Your Garden Nitrate of Soda 15%	15.78
3748	For Your Garden Superphosphate 20%	1.03	22.05	21.02

Joseph Breck & Sons
Boston, Mass.

3703	Breck's Quick Life 14-30-16	0.00	5.88	7.56	0.00	13.44	...	29.85	17.37	18.75
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California Spray-Chemical Corp.
Richmond, Calif.

4039	Ortho-Gro Liquid Plant Fertilizer 10-5-5	0.00	0.89	9.25	0.00	10.14	0.10	5.35	5.25	5.22
3611	Ortho Lawn Groom 7-11-5	0.00	3.64	1.72	1.55	6.91	1.08	13.30	12.22	4.70	6.44

Clinton Nurseries
Clinton, Conn.

4027 ^e	New Era Cow Manure 1.5-1-1	0.00	0.04	0.62	1.06	1.72	0.43	1.52	1.09	0.00	1.14
3562	New Era Plant Food 5-12-9	2.87	2.48	0.36	0.21	5.92	0.13	13.10	12.97	0.00	11.32
3709	New Era Rose Food 5-10-5	1.01	4.08	0.26	0.29	5.64	0.95	12.57	11.62	4.38	5.87
3610	New Era Vitamin Plant Food 7-15-8 .	2.63	3.06	1.68	0.08	7.45	0.13	16.22	16.09	0.00	9.79

¹Deficiencies are in bold face type.

²Mechanical analysis: fine, 37.5%; coarse, 62.5%.

³Sand, 28.05%.

⁴Sand, 33.25%.

⁵Sand, 6.90%.

⁶Sand, 41.10%.

The Espoma Co. Millville, N. J.												
4223	Espoma 3-2-1	New Haven	0.00	1.36	0.59	1.27	3.22	0.33	2.80	2.47	0.60	1.70
4222	Holly-Tone 4-6-4	New Haven	0.00	2.82	0.38	1.26	4.46	0.50	6.72	6.22	3.90	4.84
Faesy & Besthoff, Inc. New York, N. Y.												
3907 ⁴	F & B Pure Bone Meal 2.47-23-0 ...	Mystic	0.04	2.26	0.00	28.95
3486	F & B Rose Food 8-10-4	New Haven	0.56	4.44	1.16	2.50	8.66	0.38	9.67	9.29	3.97	4.18
Ferro Corp. Cleveland, Ohio												
3704 ⁵	Ferro F.T.E. (Fritted Trace Elements)	Manchester
Forward House Div. Olin-Mathieson Chem. Corp. New York, N. Y.												
3733	Plantrons 12-24-12	Rockville	0.46	11.61	0.12	12.19	0.23	24.50	24.27	9.71	12.01
Garden Research Laboratories New York, N. Y.												
3734	RX-15 (Concentrated Water Soluble) 15-30-15	Rockville	0.43	5.34	9.38	0.03	15.18	0.03	26.70	26.67	9.71	17.75
The Gardener's Center Darien, Conn.												
4132	Muriate of Potash 60%	Darien	58.68
Garfield Williamson, Inc. Jersey City, N. J.												
3904	Plantspur 4-4-2	New Haven	0.00	4.12	0.24	1.11	5.47	0.28	6.27	5.99	2.78	3.60
Gould and Olena, Inc. Skillman, N. J.												
3784	G & O Evergreen Tree & Shrub Food 9-7-4	New Canaan ...	1.11	5.24	1.38	1.45	9.18	0.53	8.97	8.44	2.74	3.90
3749	G & O Rose Food 7-8-5	Thompsonville .	0.00	4.32	1.17	0.72	6.21	0.60	10.70	10.10	7.38	9.79

¹Deficiencies are in bold face type.²Mechanical analysis: fine, 75.0%; coarse, 25.0%.³Sand, 19.18%.⁴Mechanical analysis: fine, 77.50%; coarse, 22.50%.⁵Manganese found, 2.75%, guaranteed, 2.52%; iron found, 7.00%, guaranteed, 7.00%; zinc found, 4.16%, guaranteed, 3.2%; copper found, 3.31%, guaranteed, 3.2%; boron found, 0.53%, guaranteed, 0.62%; molybdenum found, 0.13%, guaranteed, 0.13%.

TABLE 8. ANALYSES OF SMALL PACKAGE FERTILIZERS¹

Station No.	Manufacturer and brand	Place of sampling	Per cent nitrogen				Per cent phosphoric acid		Per cent potash			
			In nitrates	In ammonia	Organic		Total	Citrate-insoluble	Total	So-called "available"	As murate	Total
					water-soluble	water-insoluble						
3785	G & O Special Food for Bulbs 5-6-15	New Canaan ...	0.49	5.00	0.36	1.52	7.37	0.38	7.10	6.72	11.01	12.24
4030	G & O Tomato Food 3-12-13	Greenwich	0.30	2.36	0.28	0.81	3.75	0.53	13.87	13.34	7.13	13.94
4149	Mr. Strawberry Big 3-13-7	Fairfield	0.50	0.14	0.54	2.14	3.32	0.80	15.82	15.02	7.90	9.04
A. H. Hoffman, Inc.												
Landisville, Pa.												
4159	Hoffman Azalea & Evergreen Food 4-6-10	Bridgeport	0.00	2.72	0.22	1.68	4.62	0.20	7.17	6.97	0.12	9.32
3919 ²	Hoffman Cow Manure 2-1-1	Jewett City	0.00	0.22	0.25	1.57	2.04	0.23	1.90	1.67	0.00	2.53
3918	Hoffman Organic Base Rose Food 5-10-5	Norwich	0.00	3.96	0.24	1.16	5.36	0.18	10.95	10.77	4.33	5.31
3729 ³	Hoffman Raw Bone Meal 3.7-20-0 ..	Willimantic	0.04	4.00	...	18.50
3728 ⁴	Hoffman Sheep Manure 1.5-1-2	Willimantic	0.00	0.16	0.02	1.54	1.72	...	1.87	3.92
Hydroponic Chemical Co., Inc.												
Copley, Ohio												
3615	Hyponex Plant Food 7-6-19	Centerbrook	5.74	1.16	0.34	0.14	7.38	0.30	8.30	8.00	0.00	20.80
The Hy-Trous Corp.												
Boston, Mass.												
3478	Hy-Trous Liquid Fertilizer 4-8-4 ...	Hamden	1.52	1.81	0.89	0.00	4.22	0.05	7.92	7.87	5.19
Lebanon Chemical Corp												
Lebanon, Pa.												
3795	Lebanon Plant Food 5-10-5	Darien	1.15	3.72	0.17	5.04	0.28	10.55	10.27	5.25	6.04
3648	Lebanon Sulfate of Ammonia 20.50	New London	20.84

McCormick & Co., Inc.
Baltimore, Md.

4220 Hy-Gro 13-26-13 New Haven 3.03 4.72 6.08 0.00 13.83 0.08 24.05 23.97 3.43 15.39

The Mamlon Co.
New Haven, Conn.

3565 Fer-Mel Turf & Tree Food 24-12-12 Guilford 5.72 3.36 16.64 0.00 25.72 0.13 13.20 13.07 12.35

Miller Chemical & Fertilizer Corp.
Baltimore, Md.

4061 VHPF 6-25-15 Millford 4.44 1.56 0.28 0.00 6.28 0.23 29.60 29.37 15.64

Monsanto Chemical Co.
St. Louis, Mo.

3559 Folium 20-20-20 Danbury 6.58 4.08 10.28 0.00 20.94 0.07 16.45 16.38 22.42

Natural Plant Food Co.
Oklahoma City, Okla.

3707¹ Longhorn Brand Cattle Manure 2-1-2 Manchester 0.00 0.02 0.29 1.69 2.00 2.40 3.10
3914² Ramshorn Brand Sheep Manure 2-1-2 Pawcatuck 0.00 0.22 0.06 1.54 1.82 0.38 1.67 1.29 2.46

Nutritional Concentrates, Inc.
Pittsburgh, Pa.

4148 Fertilize Plant Food 20-10-20 Fairfield 4.34 0.88 16.04 0.10 21.36 0.03 10.85 10.82 18.41

Parks-Barnes, Inc.
Hermosa Beach, Calif.

3782 Black Magic Plant Food 2-3-2 New Canaan 0.00 0.00 0.60 2.10 2.70 0.28 3.57 3.29 3.67
3783 Black Magic African Violet Blossom Booster 4-10-10 New Canaan 0.14 0.21 4.63 0.00 4.98 0.05 8.40 8.35 7.62
3786 Blossom Booster for African Violets 4-10-10 New Canaan 0.00 0.31 4.06 0.00 4.37 0.10 10.80 10.70 10.82

¹Deficiencies are in bold face type.

²Sand: 1.12%.

³Mechanical analysis: fine, 37.50%; coarse, 62.50%.

⁴Sand: 34.38%.

⁵Sand, 18.15%.

⁶Sand, 21.58%.

TABLE 8. ANALYSES OF SMALL PACKAGE FERTILIZERS¹

Station No.	Manufacturer and brand	Place of sampling	Per cent nitrogen				Per cent phosphoric acid		Per cent potash			
			In nitrates	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate-insoluble	Total	So-called "available"	As muriate	Total
4150	Pedigreed Seed Co. New York, N. Y. Lofts Lawn Food 5-10-4	Fairfield	2.61	2.34	0.20	0.11	5.26	0.70	10.90	10.20	5.19	6.07
3479	Plantabs Corp. Baltimore, Md. Fulton's Planttabs 11-15-20 Plant Food Tablets	Hamden	7.67	3.48	0.00	0.11	11.26	0.03	18.42	18.39	26.27
3535	Ra-Pid-Gro Corp. Dansville, N. Y. Ra-Pid-Gro 23-21-17	Berlin	4.68	8.10	10.94	0.00	23.72	...	20.70	16.30
3480	The Rogers & Hubbard Co. Portland, Conn. Gro-Fast Acid Fertilizer 4-10-4	Hamden	0.18	2.12	1.48	1.25	5.03	0.40	11.87	11.47	3.24	4.84
3940 ²		Yalesville
3628 ³		Meriden	0.03	2.22	...	28.00
3433 ⁴		North Haven	0.06	2.02	...	29.50
3524 ⁵		Berlin	0.00	0.00	0.36	1.76	2.12	0.13	1.27	1.14	1.11
3939		Yalesville	0.41	2.20	2.64	1.02	6.27	0.48	11.40	10.92	4.38	5.28
3629 ⁶		Meriden	0.00	0.00	0.35	1.15	1.50	...	1.42	3.83
4147	Roigina Products Lincoln, Nebraska Roigina African Violet Plant Food 11-4-8	Fairfield	6.51	0.28	0.38	3.87	11.04	0.08	4.22	4.14	11.16
4134 ⁷	Saratoga Laboratories, Inc. Saratoga Springs, N. Y. Trace L 8-16-7	Darien	0.00	8.55	0.00	0.00	8.55	0.15	17.70	17.55	6.04	8.73

O. M. Scott & Sons Co.												
Marysville, Ohio												
3647	Scott's Weed & Feed 7-11-5	New London ...	1.84	4.58	0.24	1.18	7.84	0.40	11.70	11.30	5.40	7.16
Sears, Roebuck & Co.												
Chicago, Ill.												
3790	Cross Country Plant Food 5-10-5 ...	Stamford	0.32	3.80	0.68	0.46	5.26	0.50	11.32	10.82	4.29	5.22
3791	Cross Country Rose Food 5-10-5	Stamford	0.16	4.08	0.72	0.78	5.74	0.63	12.02	11.39	4.37	6.52
Sterns Garden Products, Inc												
Geneva, N. Y.												
3434	Stern's Miracle-Gro 15-30-15	North Haven ...	0.16	5.76	9.84	0.08	15.84	...	28.30	5.94	16.69
Wendell S. Still												
Selden, N. Y.												
3425 ⁸	Farmanure 2-1-1	Cheshire	0.00	0.28	2.11	2.03	4.42	0.33	3.43	3.10	2.28
Stim-U-Plant Laboratories, Inc.												
Columbus, Ohio												
3646	Stim-U-Plant 11-12-15	New London ...	7.57	1.80	2.08	0.01	11.46	0.10	20.37	20.27	24.93
Swift & Co.												
Plant Food Division												
Boston, Mass.												
3706	Instant Vigoro 19-28-14	Manchester	5.14	4.84	9.16	0.00	19.14	0.08	23.15	23.07	17.36
4060	Vigoro 5-10-5	Millford	0.48	1.62	2.50	0.22	4.82	0.55	10.50	9.95	4.01	5.22
3499	Vigoro 6-10-4	New Haven	0.42	4.88	0.32	0.22	5.84	0.50	11.12	10.62	2.34	4.55
Universal Chemical Co.												
(Organic Div.)												
Lynn, Mass.												
4026	Electra Plant Food 5-10-3	Greenwich	0.70	2.16	0.24	2.12	5.22	...	10.47	0.84	2.59
Van Camp Laboratories												
Div. of Van Camp Sea Food Co., Inc.												
Terminal Island, Calif.												
4221	Sea Pep 10-5-5	New Haven	0.00	2.37	8.60	0.00	10.97	...	5.60	0.57	5.47
Walker-Gordon Laboratory Co.												
Plainsboro, N. J.												
3945 ⁹	Bovung 2-1-1	Bristol	0.00	0.10	0.60	1.75	2.45	0.28	2.12	1.84	2.34

¹Deficiencies are in bold face type.⁴Mechanical analysis: fine, 70.0%; coarse, 30.0%.²Aluminum found, 9.04%.⁵Sand, 1.13%.³Mechanical analysis: fine, 69.5%; coarse, 30.5%.⁷Trace elements: Calcium found, 4.89%, guaranteed, 4.3%; magnesium found, 1.80%, guaranteed, 1.8%; sulfur found, 12.31%, guaranteed, 3.0%; iron found, 0.19%, guaranteed, 0.27%; manganese found, 0.24%, guaranteed 0.23%; boron found, 0.065%, guaranteed, 0.031%; zinc found, 0.017%, guaranteed, 0.016%.⁸Sand, 0.80%.⁹Sand, 1.56%.

TABLE 9. LAWN SPRAYS'

Station No.	Manufacturer and brand of concentrate used	Dealer	Composition of diluted spray					
			Per cent nitrogen		Per cent phosphoric acid		Per cent potash	
			Guaranteed	Found	Guaranteed	Found	Guaranteed	Found
American Liquid Fertilizer Co., Inc., Marietta, Ohio								
4362	Liqua-Vita 15-10-5	New Haven: Benedict & Co., Inc.	0.31	0.44	0.11	0.13	0.05	0.07
4363	Same brand	New Haven: Benedict & Co., Inc.	0.31	0.39	0.11	0.14	0.05	0.07
Fertilene Corp. of America Worthington, Ohio								
4368	Fertilene Liquid Fertilizer 15-10-5	New Haven: Monarch Fuel Co.	0.15	0.10	0.10	0.14	0.05	0.05
4369	Same brand	New Haven: Monarch Fuel Co.	0.15	0.10	0.10	0.14	0.05	0.05
4371	Same brand	Waterbury: William E. Wesson, Inc. ...	0.15	0.12	0.10	0.18	0.05	0.07
4372	Same brand	Waterbury: William E. Wesson, Inc. ...	0.15	0.11	0.10	0.12	0.05	0.06
Liquilizer Corp. Vincennes, Ind.								
4365	Liquilawn 12-8-4	West Haven: Conn. Refining Co.	0.12	0.15	0.08	0.12	0.04	0.07
4366	Same brand	West Haven: Conn. Refining Co.	0.12	0.16	0.08	0.19	0.04	0.07
3956	Liquilizer 12-8-4	Hartford: Parkville Coal & Oil Co.	0.12	0.09	0.08	0.07	0.04	0.04
Monsanto Chemical Co. St. Louis, Mo.								
4277	Folium 20-20-20	Hartford: C. & R. Oil Co., Inc.	0.20	0.18	0.20	0.20	0.20	0.21
4278	Same brand	Hartford: C. & R. Oil Co., Inc.	0.20	0.17	0.20	0.20	0.20	0.20
Super Lawn Corp. Newark, N. J.								
4241	Super Lawn Liquid Fertilizer 12-8-4	East Hartford: Mellen, White & Palshaw, Inc.	0.12	0.12	0.08	0.09	0.04	0.05

4242	Same brand	East Hartford: Mellen, White & Palshaw, Inc.	0.12	0.08	0.08	0.04	0.06
4280	Same brand	Hartford: Parkville Coal & Oil Co.	0.12	0.08	0.07	0.04	0.05
4281	Same brand	Hartford: Parkville Coal & Oil Co.	0.12	0.08	0.08	0.04	0.05
The Virilium Corp.							
Medway, Mass.							
4271	Virilium 12-8-4	New Haven: Seaboard Coal Co.	0.12	0.08	0.08	0.04	0.04
4273	Same brand	New Haven: Seaboard Coal Co.	0.12	0.08	0.08	0.04	0.04
4374	Same brand	Waterbury: F. & S. Oil Co.	0.12	0.08	0.12	0.04	0.07
4375	Same brand	Waterbury: F. & S. Oil Co.	0.12	0.08	0.12	0.04	0.07

¹Deficiencies are in bold face type.

TABLE 10. ANALYSES OF OTHER MISCELLANEOUS MATERIALS

Station No.	Material	Total nitrogen per cent	Total phosphoric acid, per cent	"Available" phosphoric acid, per cent	Water-soluble potash, per cent	Chlorine per cent	Moisture per cent	Ash per cent	Organic matter per cent	Aluminum per cent	Boron per cent	Calcium per cent	pH
4237	Aluminum sulfate ground, technical grade	9.50
3618	Aluminum sulfate standard-ground	9.09
4626	Bristol peat	0.90	0.11	0.09	...	45.80
2691	Cattle manure and peat moss	0.54	0.17	0.31	...	69.00
3609	"Chiguano 1-1-1"	0.80 ¹	9.87	2.74	0.74	0.06
4788	"Chiguano"	1.06	2.27	2.02	0.61
4422	"Chiguano Blend"	0.79	3.54	0.62	...	46.00
4421	Compost	1.16	4.28	1.33	...	50.00
3580	"Doris Turf Special 5-10-5"	6.28 ²	11.70	11.25	5.34	3.55
1638	Fertilizer	0.51	0.40	0.62	...	45.56	42.00	12.44
1577	Fertilizer	5.50 ³	6.65	6.32	3.38	...	4.44	46.15	49.41
1960	Fertilizer	1.09	1.00	1.10	...	14.10	74.15	11.75
2516	Fertilizer	0.46	0.36	0.49	...	39.69	45.94	14.37	0.56	6.96
3725	Fertilizer	8.50	8.32	10.82
4675	Fertilizer	1.02	2.65	0.14	...	32.00
3431	Fertilizer borate high grade fine mesh	13.50 ⁴
3056	Fertilizer for making liquid fertilizer	7.05	0.15	0.19
4377	Fine peat	1.04	0.18	0.08	...	50.00
968	Fly Ash	1.25	0.25
969	Fly Ash	1.22	0.47
970	Fly Ash	1.10	0.50
972	Garbage compost	2.25	1.50
2276	"Gold Medal Plant Food"	22.40	22.70	22.49	16.50
3064	"Gro-All Liquid Fertilizer"	0.91 ⁵	1.43	2.25
1729	Hen manure	2.93	3.25	1.40
3578	"Hyganic 10-6-4"	9.48 ⁶	7.25	6.67	5.41	2.88

1780	Humphrey manure	0.84	0.95	0.84	51.32	0.62	...
3055	Lawn fertilizer	1.10	0.80	1.20	71.91
4361	"Liqua-Vita 35%"	31.19 ⁷	0.15	0.70
4628	Mixed compost	0.72	0.59	0.18
4674	Mixture of flooded and dried fertilizers	5.29	5.78	2.57
2733	"Old Corral" 75% cow manure 25% peat	0.57	0.19	0.51
973	"Organo" fertilizer	6.85	0.44
4378	Peat	0.81	0.18	0.08
4379	Peat	0.65	0.08	0.03
4380	Peat	0.40	0.05	0.01
4629	Poultry compost	1.30	2.73	0.82
4627	Saybrook peat	0.58	0.04	0.12
2908	"Sea Pep Brand Fish Base Deodorized Fortified Liquid Plant Food 10-5-5"	12.04 ⁸	5.05	5.05	6.07
3196	Sewage sludge	0.12	0.08	0.01
3197	Sewage sludge	0.83	0.46	0.02
3198	Sewage sludge	0.15	0.10	0.01
4101	Sewage sludge from Stratford sewage plant	2.43	1.50	0.22	50.15
2417	Sewage waste from North Manchester sewage plant	2.41	1.75	0.19	48.78	6.20
3579	"Special Fairway 8-6-2"	7.26 ⁹	7.70	7.15	3.96	2.16
1822	Superphosphate 20% ¹⁰
3344	Tan bark	0.80	0.11	0.03	62.50
3677	Waste products from knitting mill ¹¹	0.73	7.75	0.19	small	quant.	trace	or none

¹Ammonia nitrogen, 0.28%; insoluble nitrogen, 0.52%; activity of insoluble nitrogen, 50%.²Nitrate nitrogen, 0.56%; ammonia nitrogen, 4.12%; soluble organic nitrogen, 1.20%; insoluble nitrogen, 0.40%.³Nitrate nitrogen, 1.29%; ammonia nitrogen, 2.00%.⁴Guaranteed, 13.60%.⁵Nitrate nitrogen, 0.47%; ammonia nitrogen, 0.44%.⁶Nitrate nitrogen, 0.19%; ammonia nitrogen, 6.40%; soluble organic nitrogen, 2.40%; insoluble nitrogen, 0.49%.⁷Nitrate nitrogen, 8.82%; ammonia nitrogen, 9.06%; soluble organic nitrogen, 13.31%;⁸Nitrate nitrogen, 1.54%; ammonia nitrogen, 1.28%; soluble organic nitrogen, 9.22%.⁹Nitrate nitrogen, 0.00%; ammonia nitrogen, 4.16%; soluble organic nitrogen, 1.77%¹⁰Arsenic, 0.03%.¹¹Lead, 0.0015%; copper, 0.0025%; silicon, considerable quantity; iron and gallium, small quantities.

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